Ex-Sight.Com
OZ-LEHAVA
User Manual

Last Update: 29/10/2014

Contents

1 OZ-LEHAVA Setup 4

2 Overview 5

2.1 OZ-LEHAVA Architecture 6

2.2 OZ-LEHAVA outputs in case of fire alerts 7

2.3 Fire Detection Preset Cycle 8

3 Technical Specifications 9

3.1 Fire Detection Range 9

3.2 OZ-LEHAVA Motorized Camera Scheme 10

3.3 Time Division Multiple Access (TDMA) Wiring 11

4 Hardware Configuration 12

4.1 Decoder Configuration – Receiving DO from Encoder 12

4.2 Encoder Configuration 13

4.2.1 Set Device Heartbeat 13

4.2.2 Set output image size 640X480(VGA) 15

4.2.3 Set UART1 16

4.2.4 Set UART2 17

4.2.5 'Send DO to Decoder' Configuration: 18

4.3 Testing Configuration 31

5 Software Usage 33

5.1 First Time Usage (configure OZ-LEHAVA settings) 33

5.1.1 Logging-in 34

5.1.2 Quick configuration: 35

5.2 Live Video 37

5.3 PTZ Panel 38

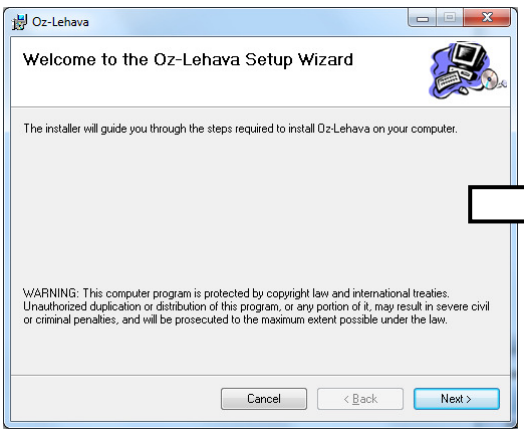
5.4 The Presets Panel 39

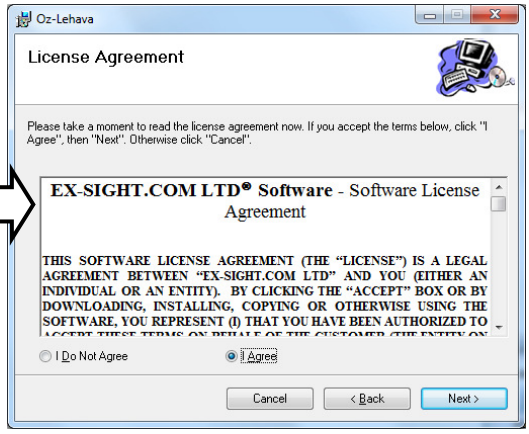
5.5 Fire Detection Time Zones 42

5.6 Fire Detection Panel 46

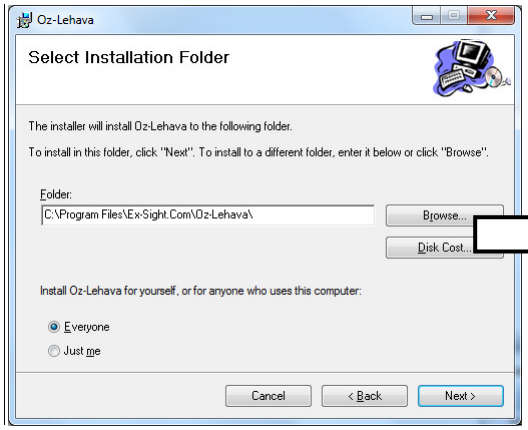
5.6.1 Fire Detection Example 48
5.7 Live Indicators & Messages 49
5.7.1 Status bar 50
5.7.2 Messages Panel 51
5.8 Layout Manipulation 53
5.9 Thermal Camera Settings 54
5.9.1 Operational Tab 56
5.9.2 Maintenance Tab 57
5.10 Settings 58
5.10.1 Device 58
5.10.2 Oz Lehava 59
5.10.3 Oz -Lehava Learning Mode 61
5.10.4 PTZ Control 62
5.10.5 Security 63
5.10.6 Video Sources 63
5.11 Oz-Lehava Garbage Collector 66
6 OZ-LEHAVA Registration/Activation 68
7 Trouble Shooting 69
8 Appendix A: PTZ Control 70
8.1 Main PTZ Panel 70
8.2 Presets+ Panel 71
8.3 Record/Play PTZ Scripts Panel 72
8.4 Annex Encoder Event Profile Settings (BAZAN, Haifa Oil Refineries) 73

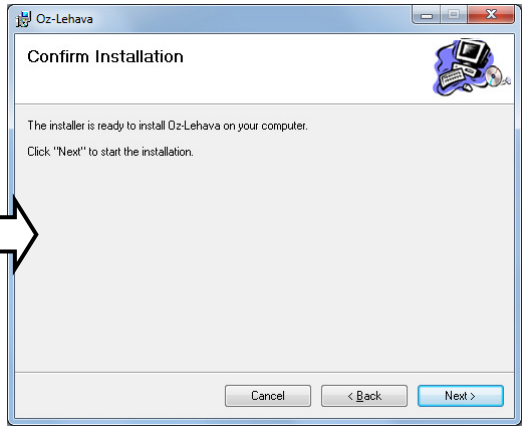
1 OZ-LEHAVA Setup


Oz-Lehava
Welcome to the Oz-Lehava Setup Wizard
The installer will guide you through the steps required to install Oz-Lehava on your computer.
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
Cancel
< Back
Next >

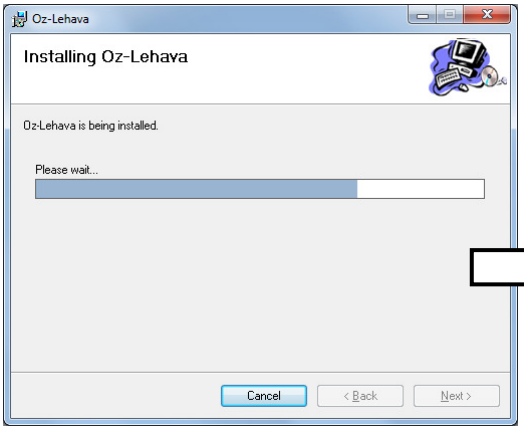

Oz-Lehava
License Agreement
Please take a moment to read the license agreement now. If you accept the terms below, click "I Agree", then "Next". Otherwise click "Cancel".
EX-SIGHT.COM LTD® Software - Software License Agreement
THIS SOFTWARE LICENSE AGREEMENT (THE "LICENSE") IS A LEGAL AGREEMENT BETWEEN "EX-SIGHT.COM LTD" AND YOU (EITHER AN INDIVIDUAL OR AN ENTITY). BY CLICKING THE "ACCEPT" BOX OR BY DOWNLOADING, INSTALLING, COPYING OR OTHERWISE USING THE SOFTWARE, YOU REPRESENT (I) THAT YOU HAVE BEEN AUTHORIZED TO
I Do Not Agree
I Agree
Cancel
< Back
Next >

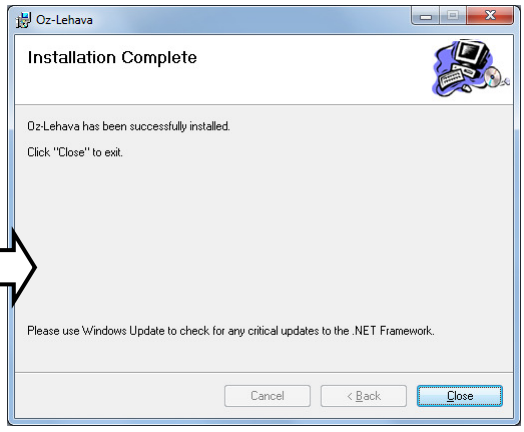
1) Click **Next** to continue, or Cancel to exit setup 2) Select "I agree" and click **Next**


Oz-Lehava
Select Installation Folder
The installer will install Oz-Lehava to the following folder.
To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".
Folder:
C:\Program Files\Ex-Sight.Com\Oz-Lehava\
Browse...
Disk Cost...
Install Oz-Lehava for yourself, or for anyone who uses this computer:
Everyone
Just me
Cancel
< Back
Next >


Oz-Lehava
Confirm Installation
The installer is ready to install Oz-Lehava on your computer.
Click "Next" to start the installation.
Cancel
< Back
Next >

3) Select the installation folder and hit **Next** 4) Press **Next** to install





5)Wait for the installtion to finish 6) "OZ-LEHAVA" is installed

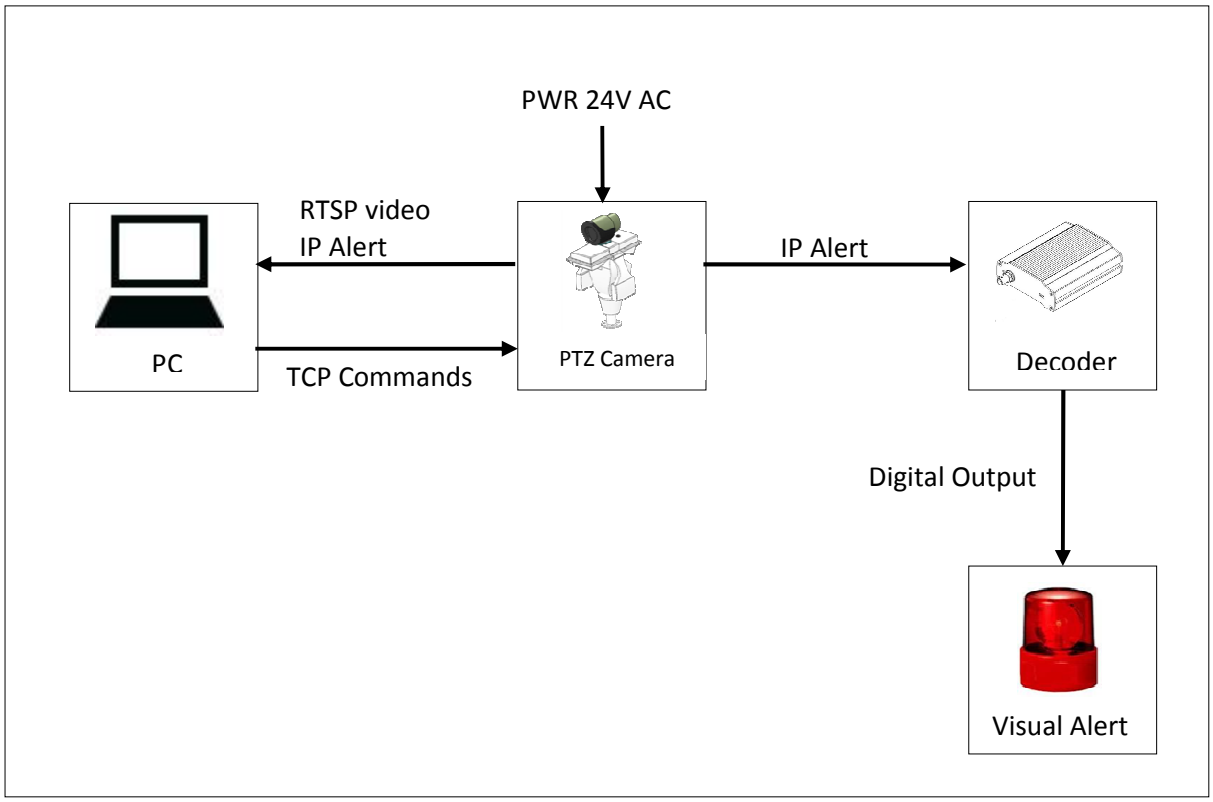
2 Overview

OZ LEHAVA integrates perimeter surveillance, long-range area observation, and fire detection analytics in a single PTZ camera. The system's day and thermal sensors are embedded in a superior PAN TILT platform with IP (Ethernet) interface.

OZ LEHAVA provides a reliable response to major safety risks by enabling the user to continuously monitor target sites in the range of a few kilometres from the epicentre. The area scanning is performed according to configurable zones of interests and temperature thresholds.

Once a flame has been detected, OZ LEHAVA activates its risk-communication mechanisms, such as transmission of the target's location coordinates (x; y). The false alarm risk is kept to a minimum due the embedded risk assessing algorithm. This enables the system to determine whether a given target represents a fire or is the result of environmental temperature changes. If a designated preset exceeds the defined temperature threshold, alert notifications are sent to the user's interface.

2.1 *OZ-LEHAVA Architecture*



2.2 *OZ-LEHAVA Outputs in Case of Fire Alerts*

1. **Thermal Camera Video (on local and remote PCs)**

The fire sources detected in the video stream are signaled by fire alerts and marked by circles.

2. **Audio Alert**

   Audio alerts are set on the ***OZ LEHAVA*** PC application and can be manually altered.

Fire Alerts Log (on the PCs with installed application)

The daily fire alerts record

3. **Digital Output**

   Digital output is released at each fire detection and can be used for remote detection alerts, such as audio or visual warnings.

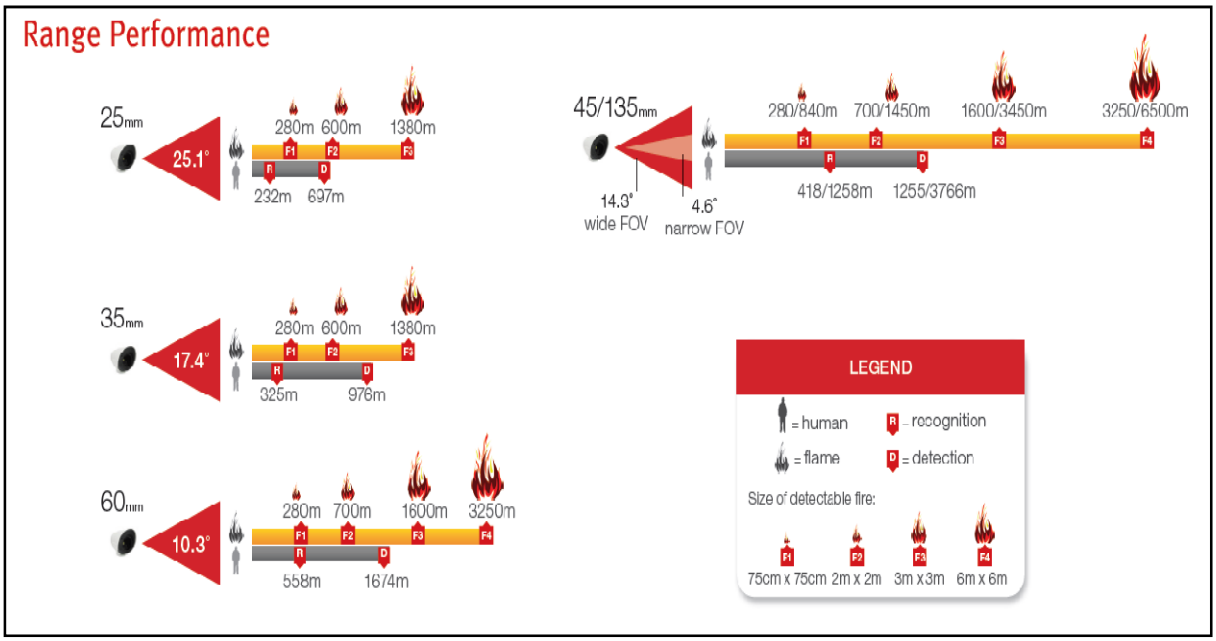
2.3 *Fire Detection Preset Cycle*

For each preset, ***OZ-LEHAVA*** takes the following steps:

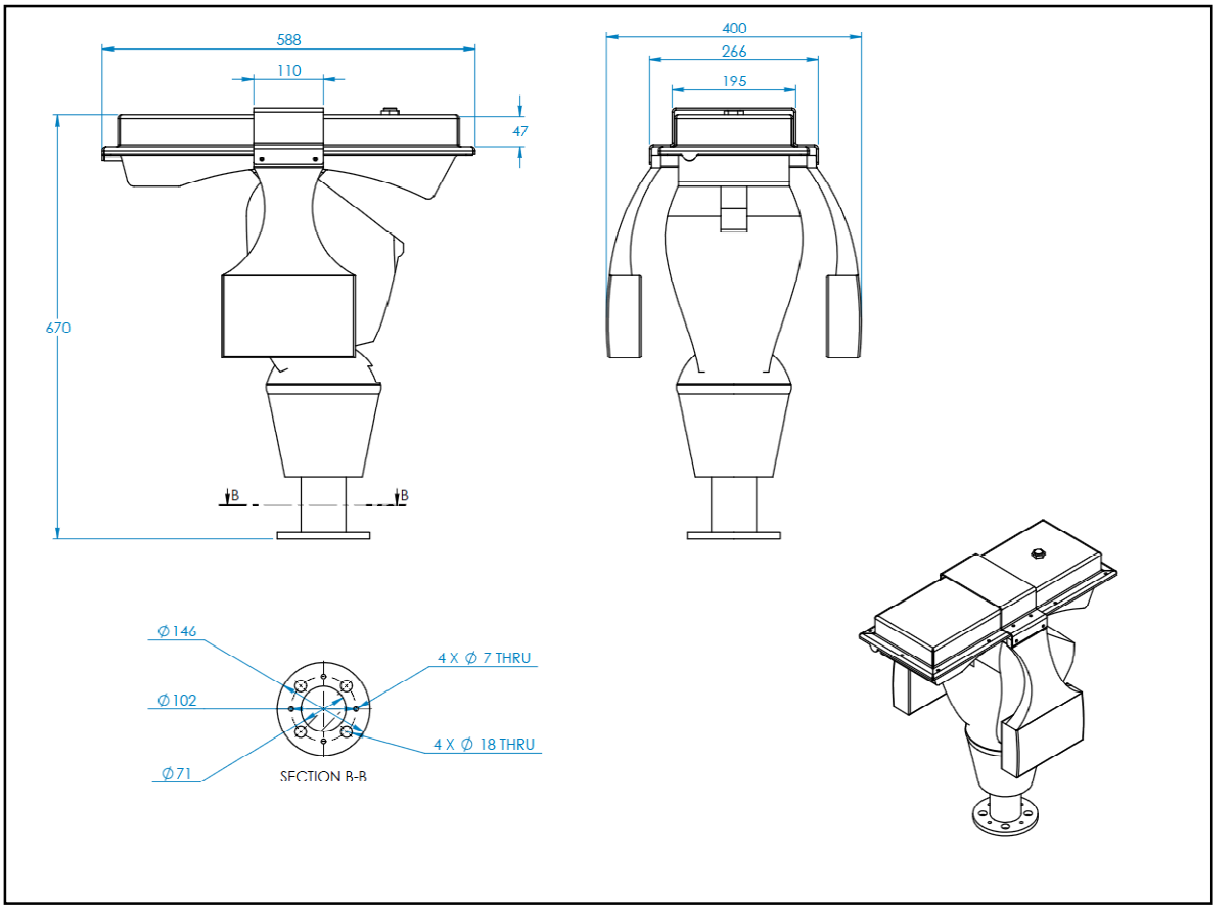
#	Step	Text Notification	Audio alarm	Digital output
1	Stop Fire Detection	preset name[P,T,Z]		
2	Go to Location Pan	preset name[P,T,Z]		
3	Go to Location Tilt	preset name[P,T,Z]		
4	Verify Position Pan	preset name[P,T,Z]		
5	Verify Position Tilts	preset name[P,T,Z]		
6	Camera Stabilization	preset name[P,T,Z]		
7	Start Fire Detection	Detecting[preset name]	On fire detection	True on fire detection else False

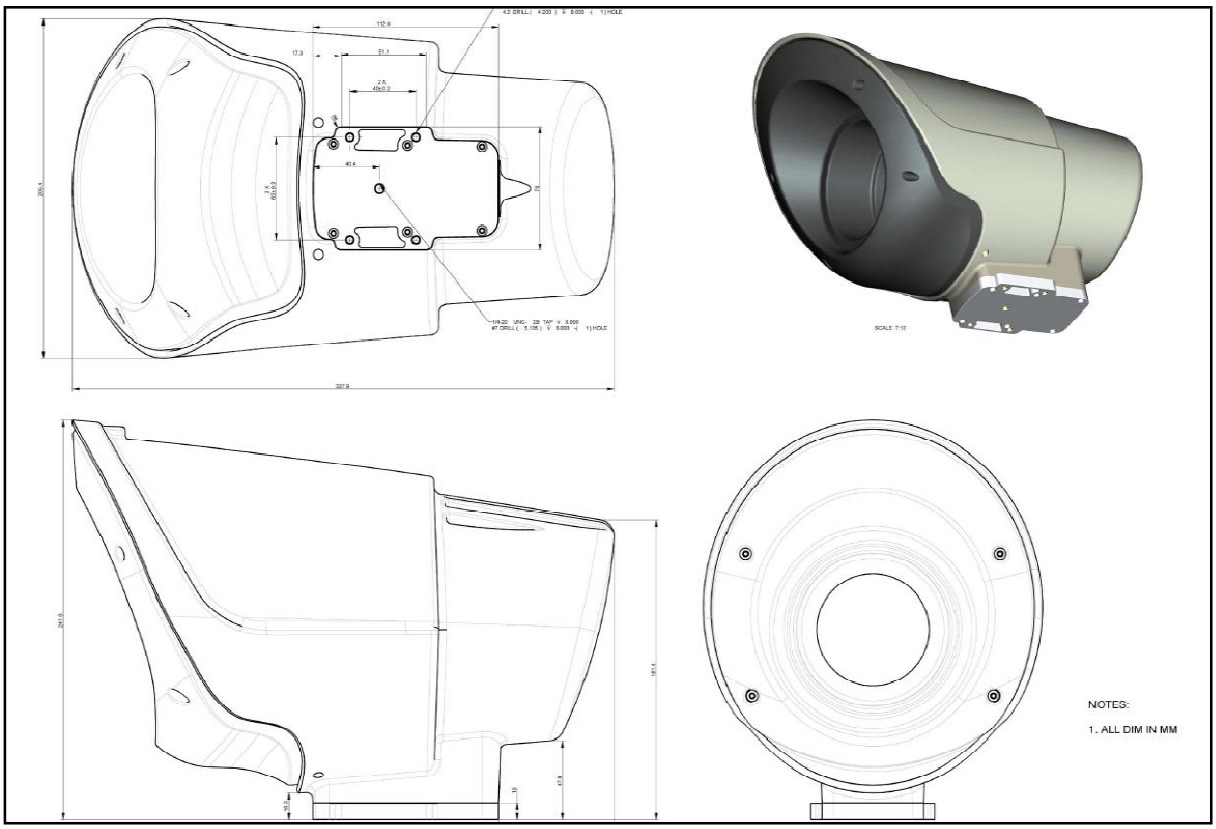
3 Technical Specifications

3.1 *Fire Detection Range*

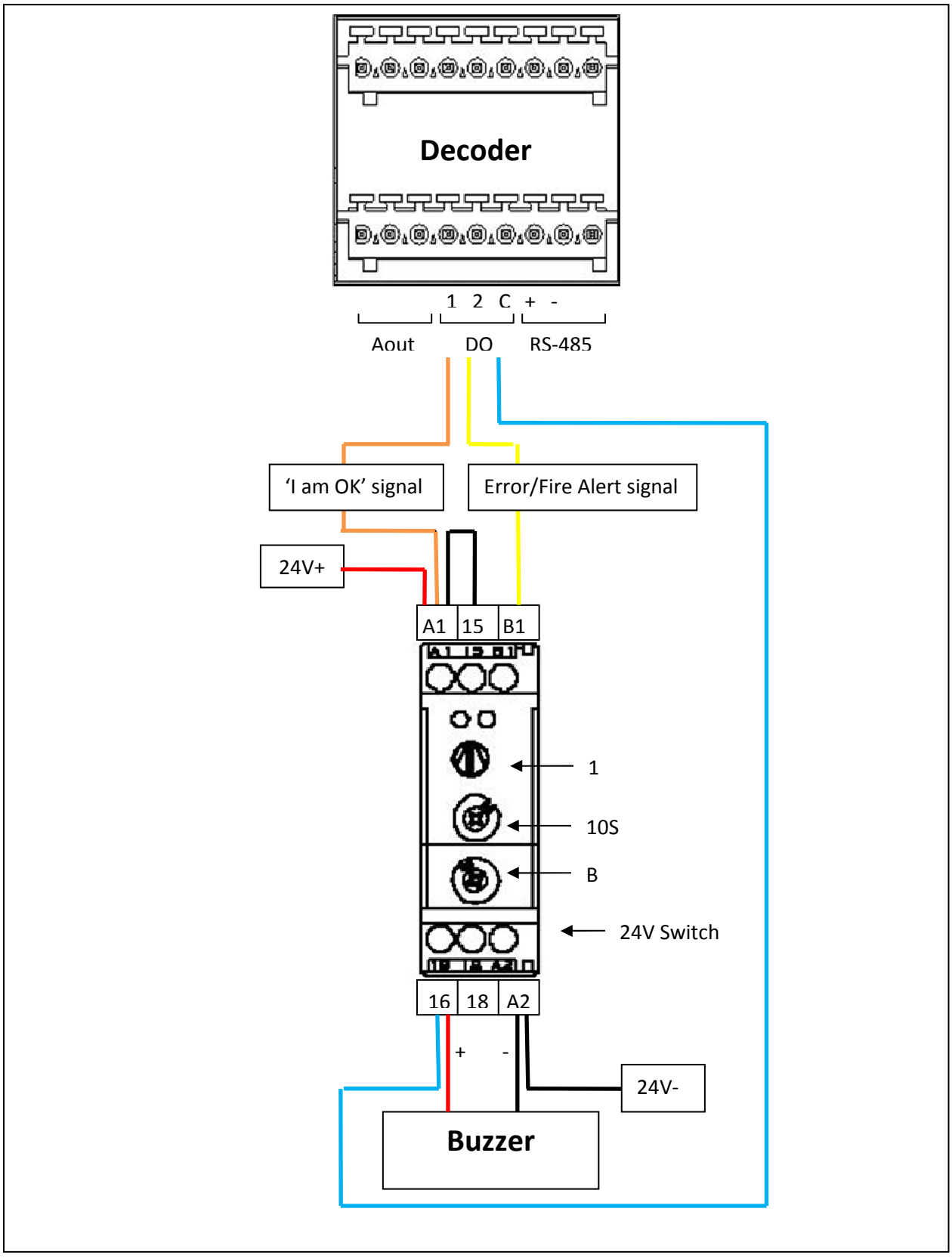


3.2 *OZ-LEHAVA Motorized Camera Scheme*





3.3 *Time Division Multiple Access (TDMA) Wiring*

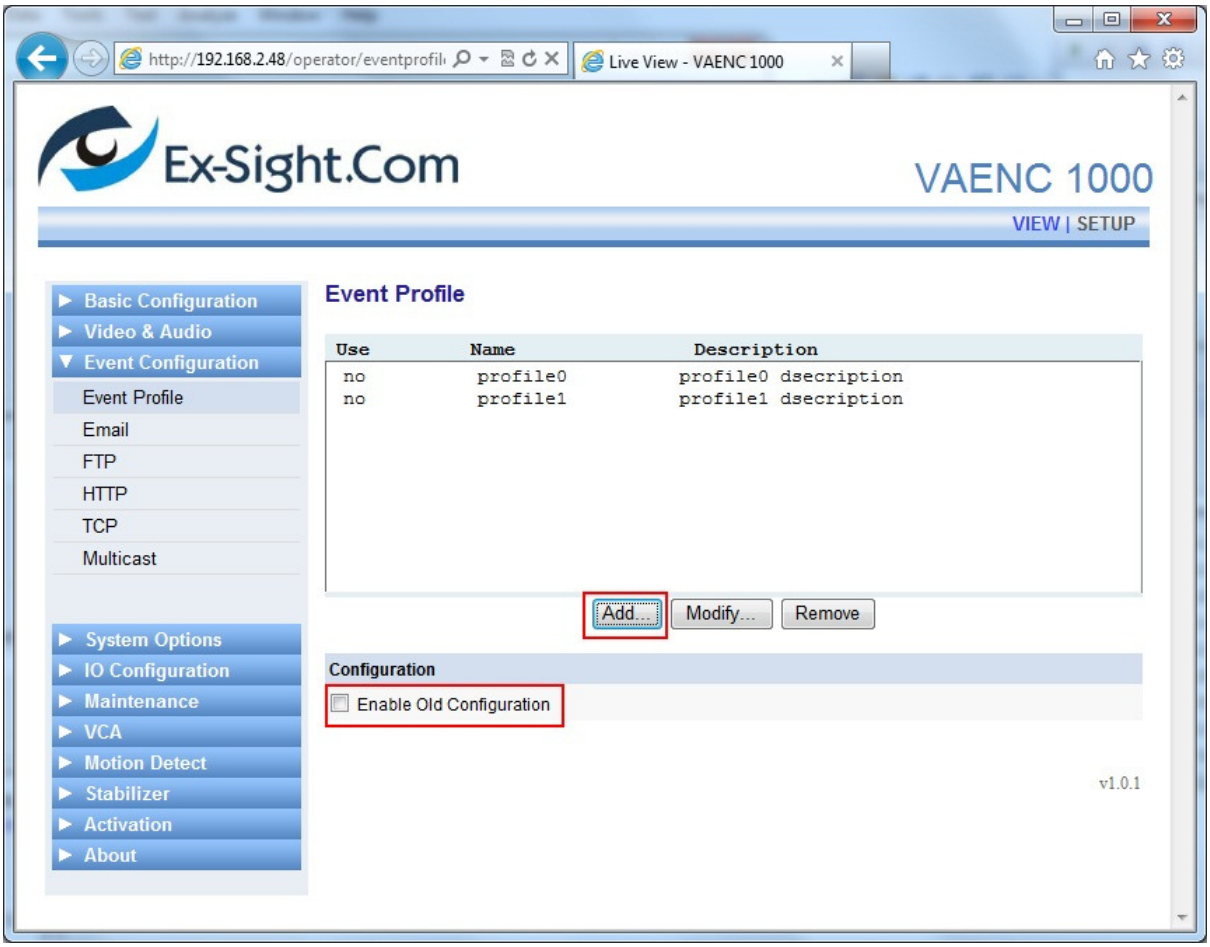


4 Hardware Configuration

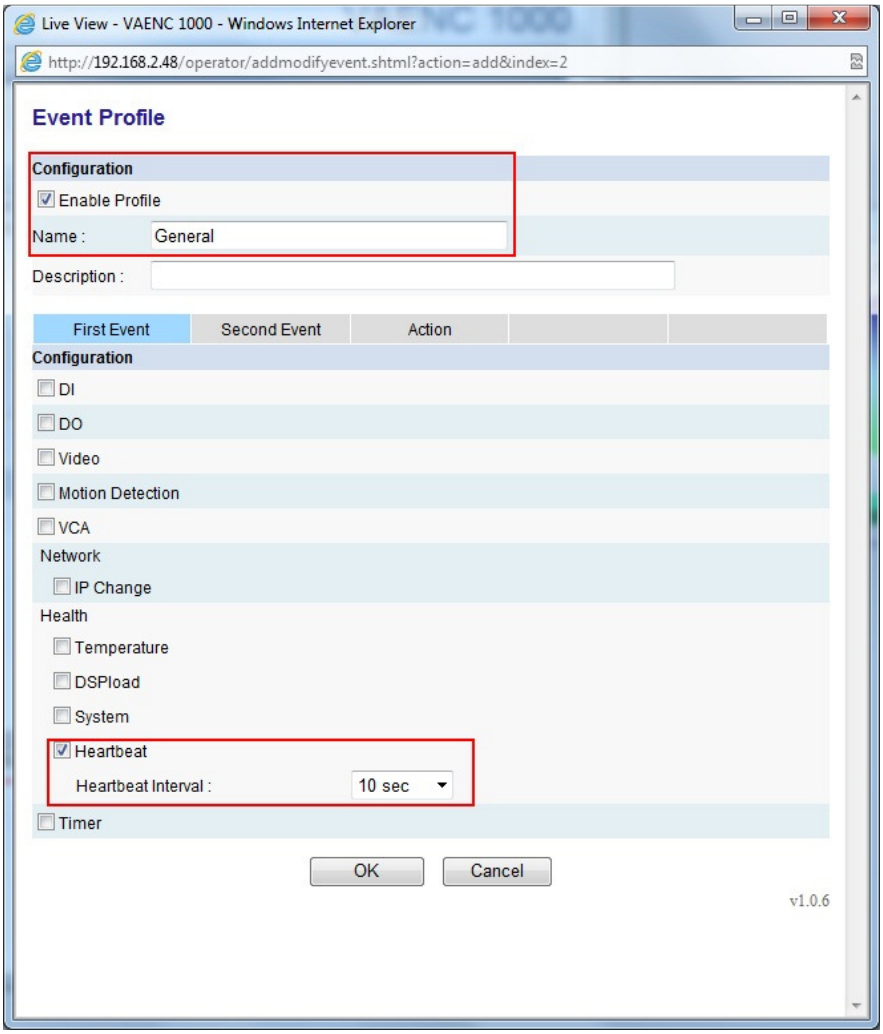
4.1 *Decoder Configuration – Receiving DO from Encoder*

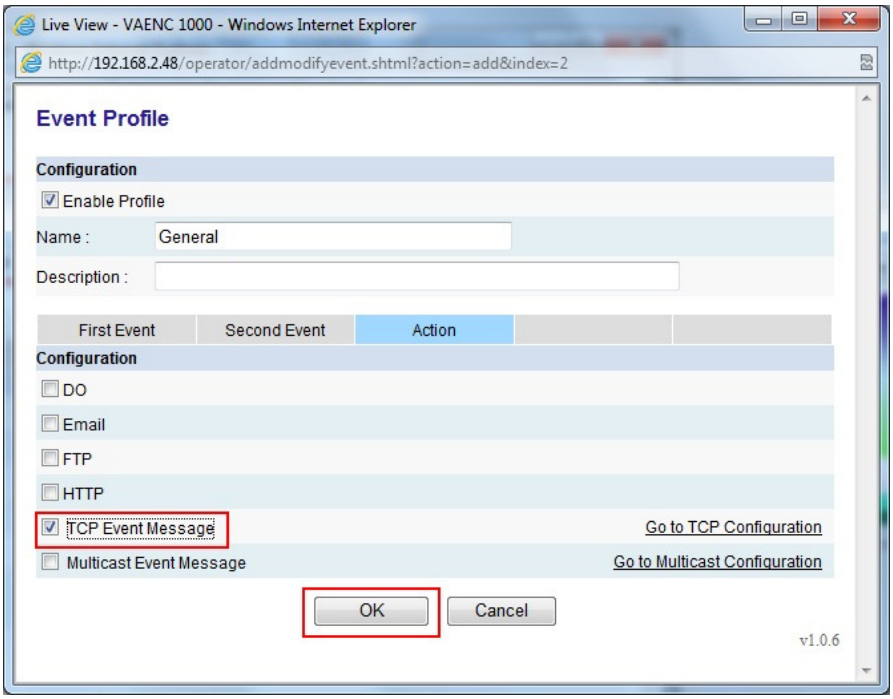
4.2 *Encoder Configuration*

4.2.1 Set Device Heartbeat

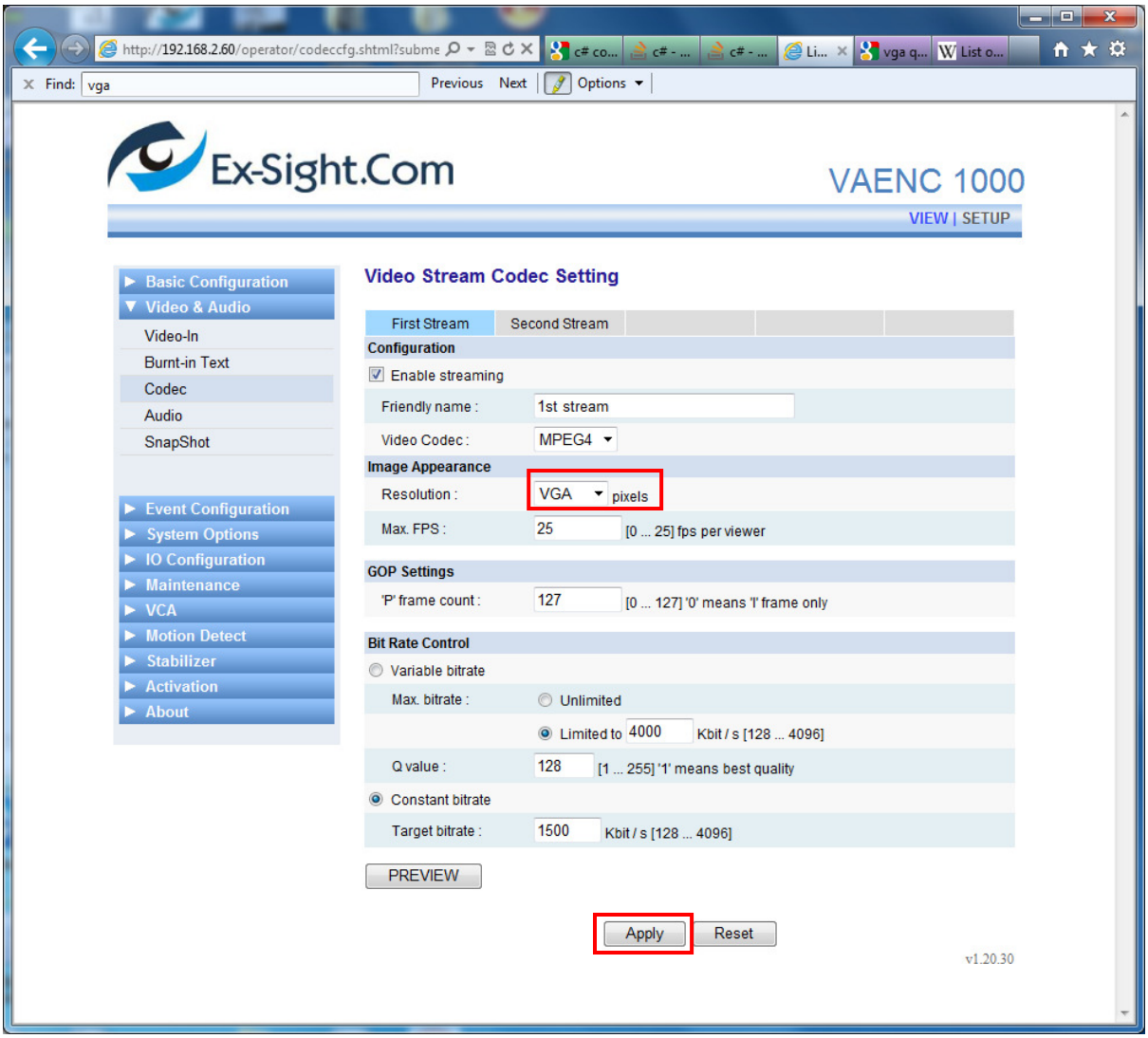


Set Device Heartbeat – continue

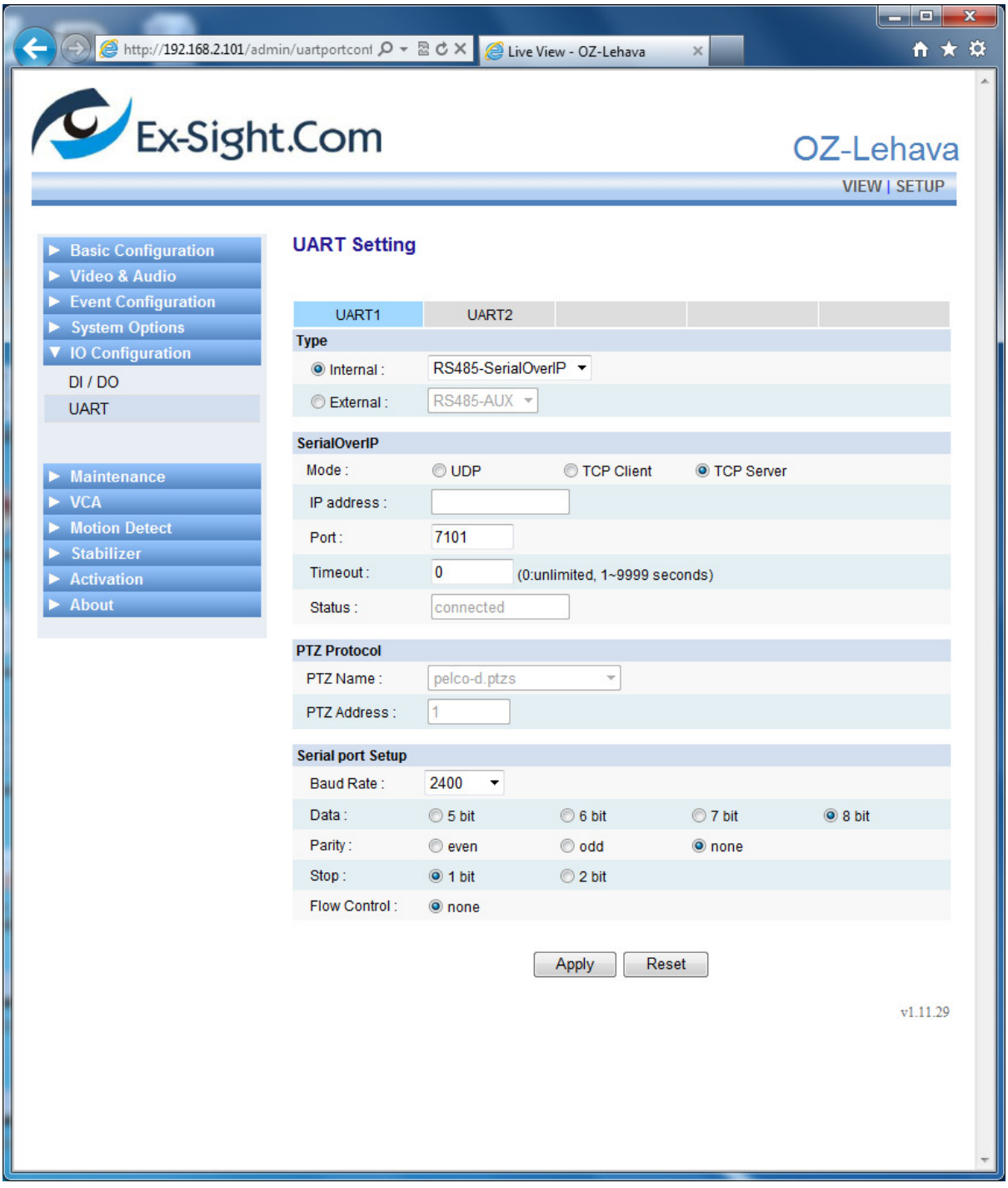




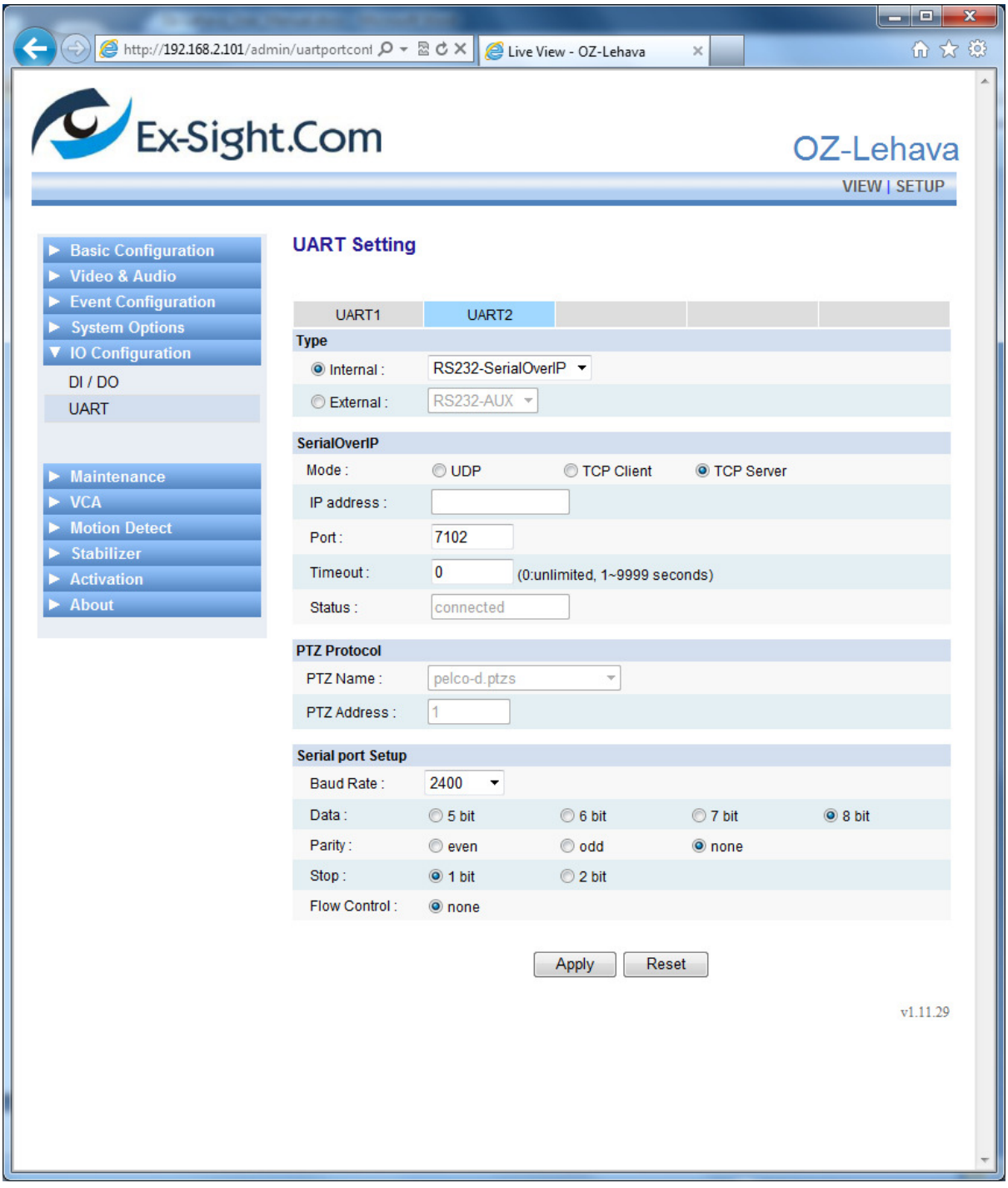
4.2.2 Set Output Image Size 640X480(VGA)



4.2.3 Set UART1



4.2.4 Set UART2



4.2.5 'Send DO to Decoder' Configuration:

The **OZ *LEHAVA*** application sends two digital outputs via the encoder to the decoder

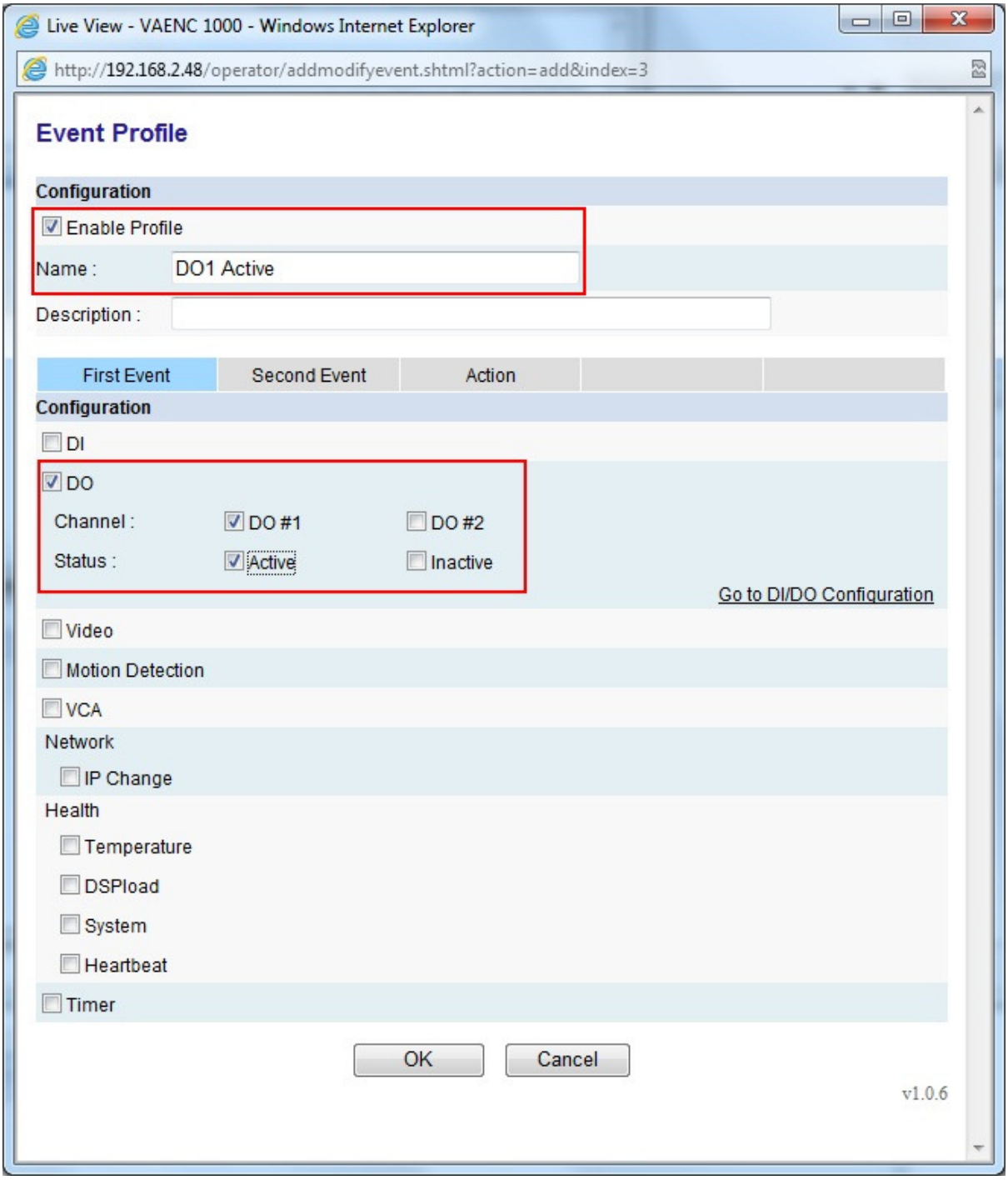
- DO1 for saying "I'm Ok", a pulse (signal 'true' followed by signal 'false') that is sent every few seconds to initial the timer unit.
- DO2 for 'Fire Alert' or an error: a signal 'true' is sent. "No fire detected" disables the 'Fire Alert' signal (set it 'false').

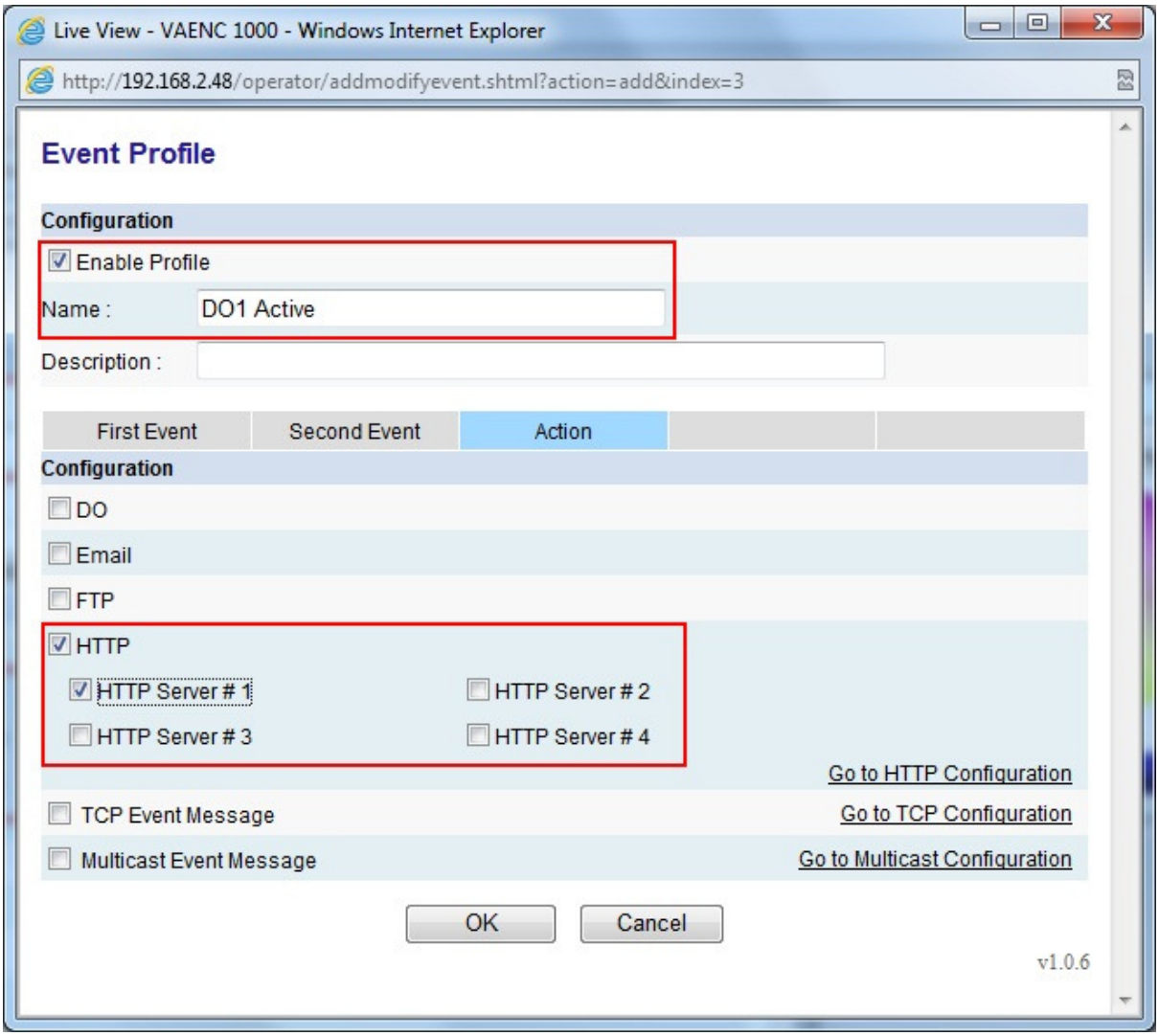
If DO1 pulse has not been received by the decoder for more than 10 seconds, or DO2 has signaled "true", the buzzer sends an alert.

4.2.5.1 Setting DO 1 'Active' event

To add a new event, follow these steps:

1. Event configuration->Event profile
2. Follow the screenshots below to complete the process.

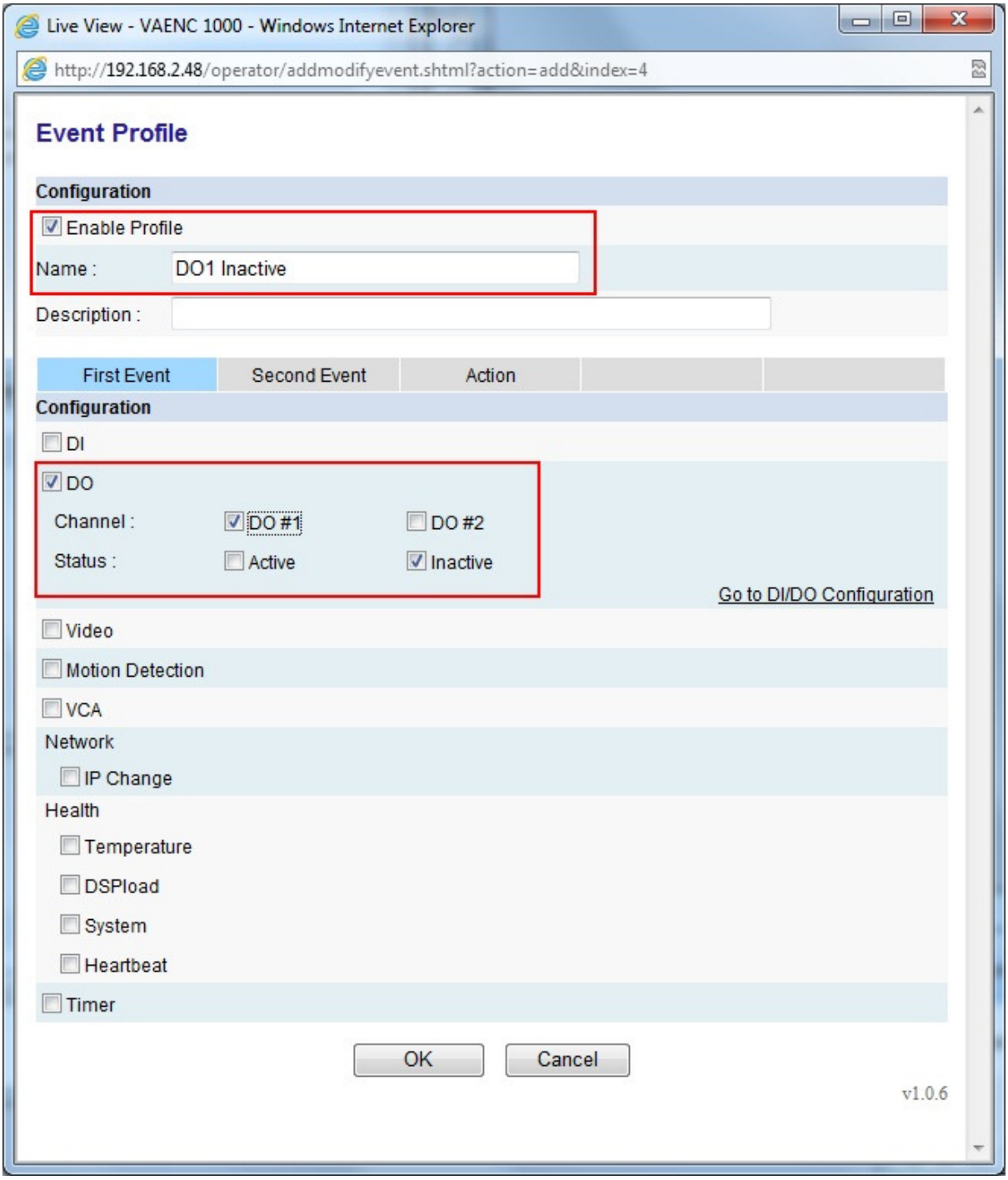


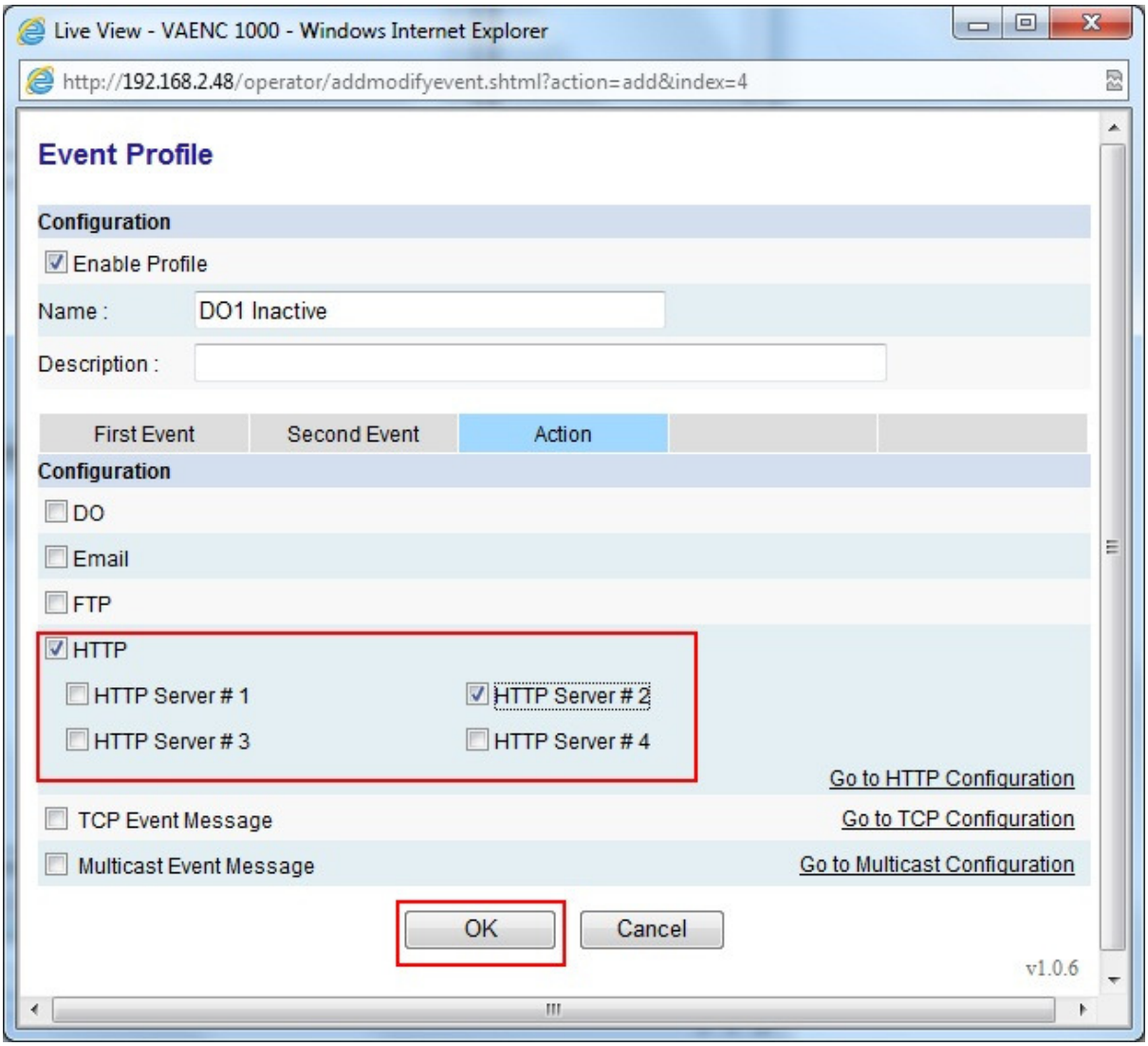

Live View - VAENC 1000 - Windows Internet Explorer
http://192.168.2.48/operator/addmodifyevent.shtml?action=add&index=3
Event Profile
Configuration
Enable Profile
Name :
DO1 Active
Description :
First Event
Second Event
Action
Configuration
DO
Email
FTP
HTTP
HTTP Server # 1
HTTP Server # 2
HTTP Server # 3
HTTP Server # 4
Go to HTTP Configuration
TCP Event Message
Go to TCP Configuration
Multicast Event Message
Go to Multicast Configuration
OK
Cancel
v1.0.6

4.2.5.2 Setting DO 1 'Inactive' event

To add a new event, follow these steps:

1. Event configuration->Event profile
2. Follow the screenshots below to complete the process

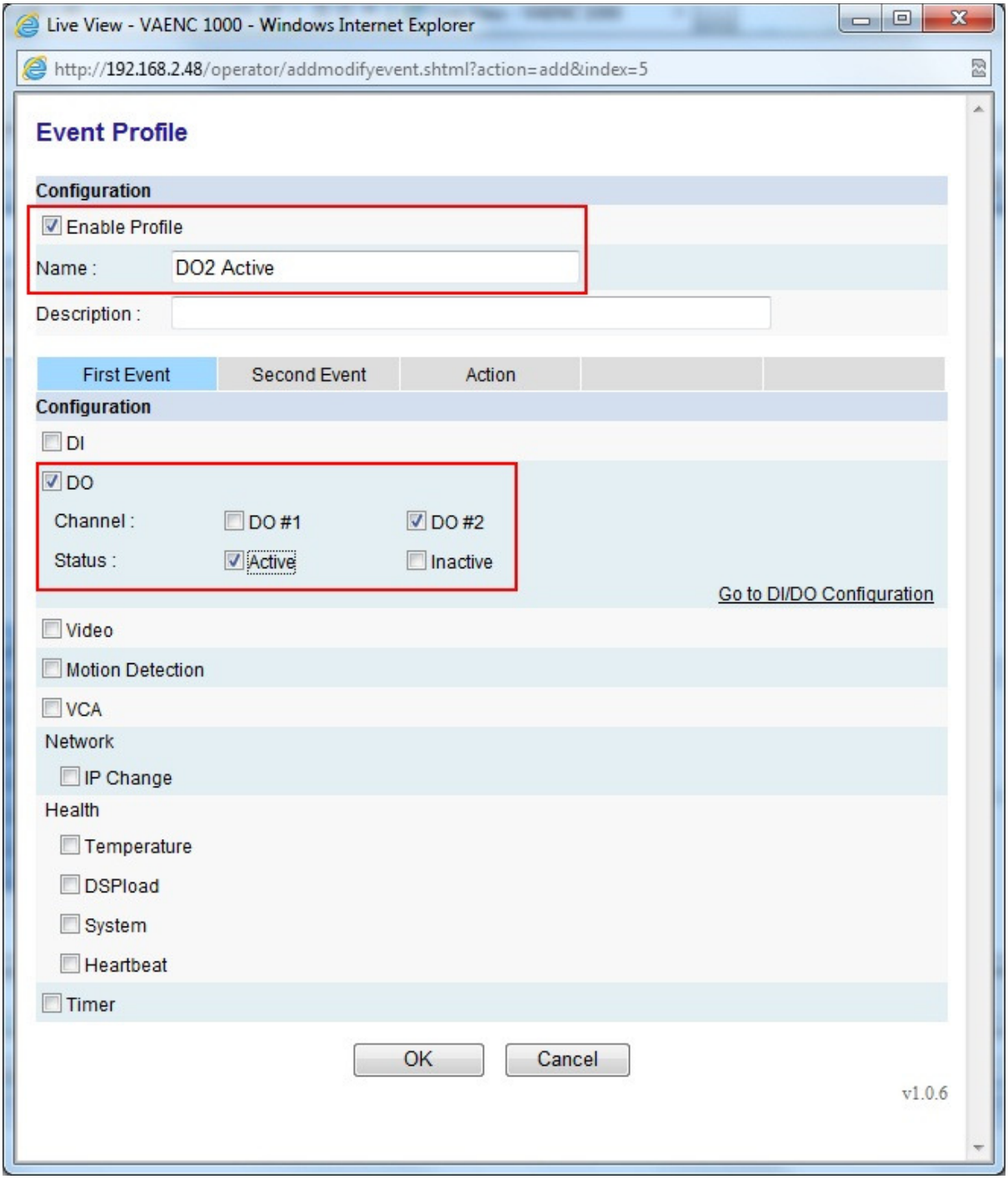


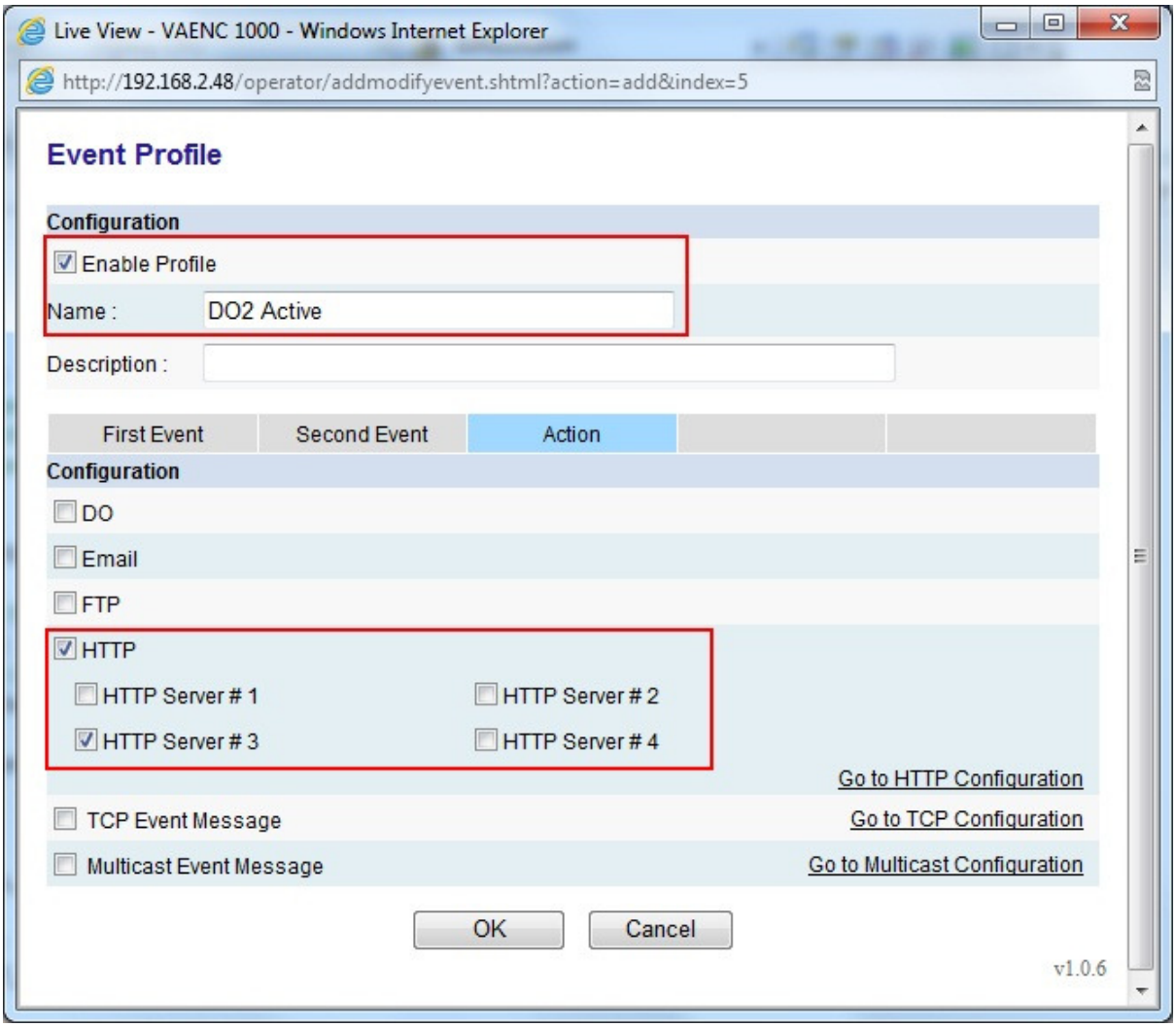

Live View - VAENC 1000 - Windows Internet Explorer
http://192.168.2.48/operator/addmodifyevent.shtml?action=add&index=4
Event Profile
Configuration
Enable Profile
Name :
DO1 Inactive
Description :
First Event
Second Event
Action
Configuration
DO
Email
FTP
HTTP
HTTP Server # 1
HTTP Server # 2
HTTP Server # 3
HTTP Server # 4
Go to HTTP Configuration
TCP Event Message
Go to TCP Configuration
Multicast Event Message
Go to Multicast Configuration
OK
Cancel
v1.0.6

4.2.5.3 Setting DO 2 'Active' event

To add a new event, follow these steps:

1. Event configuration->Event profile
2. Follow the screenshots below to complete the process

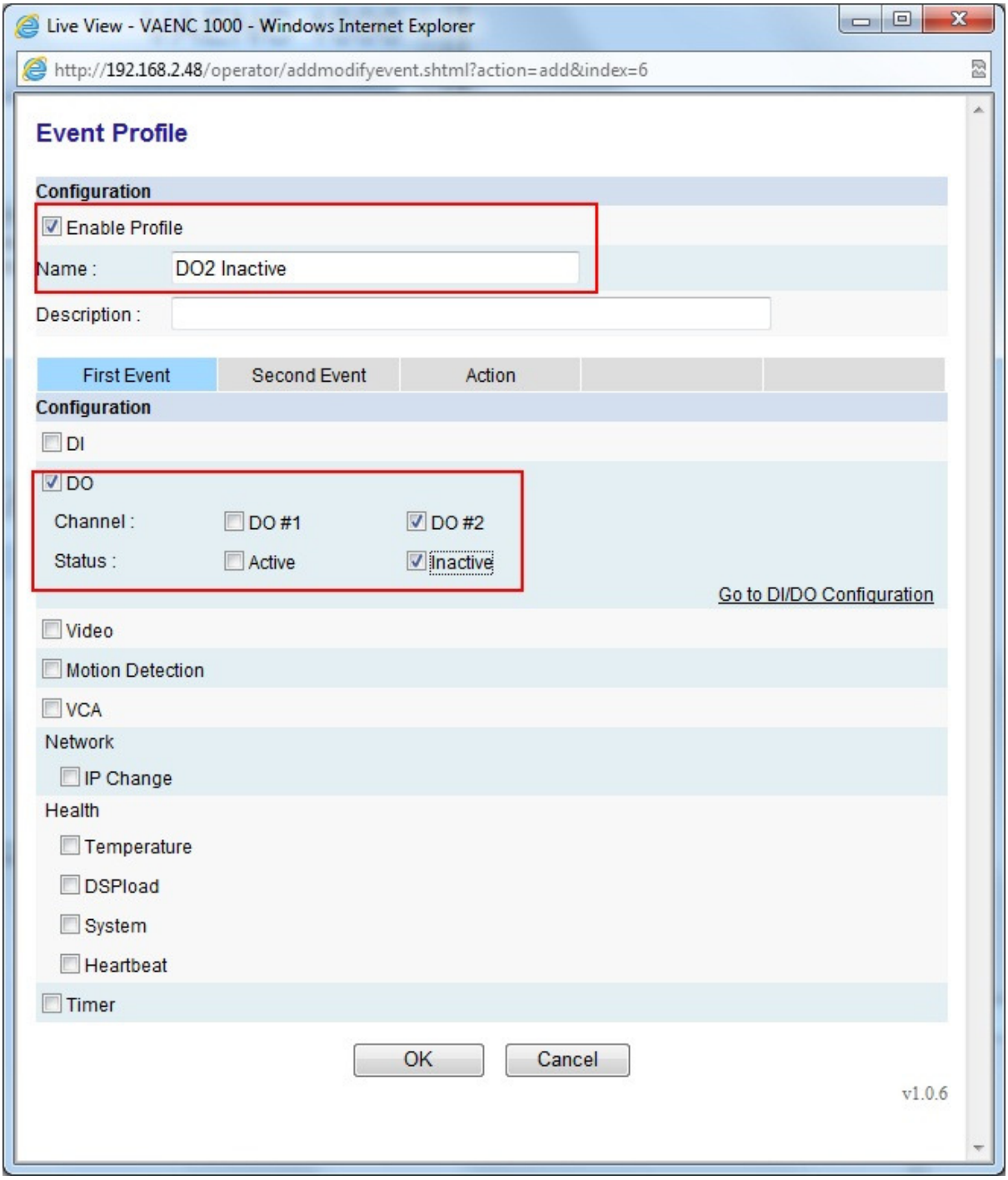


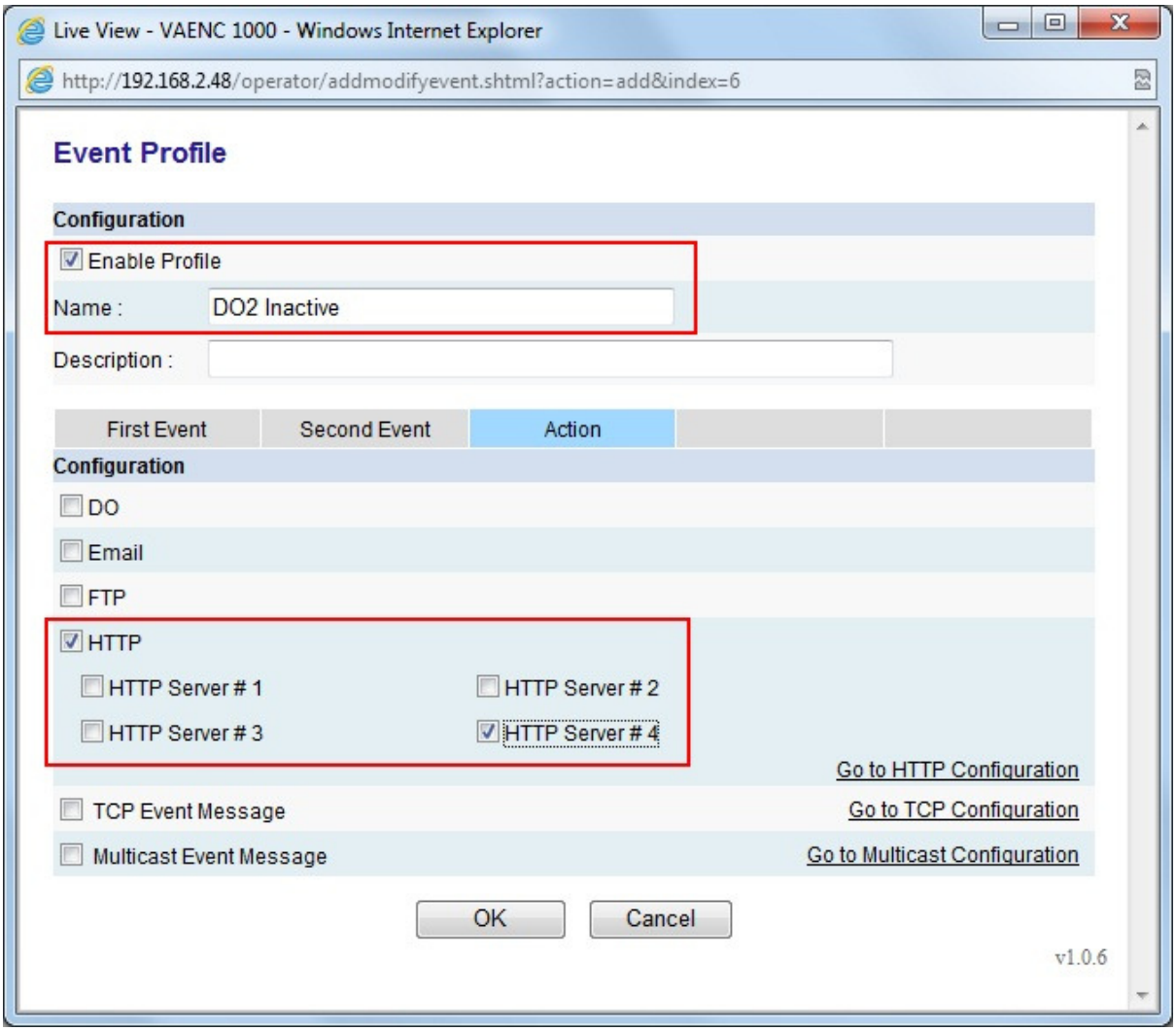

Live View - VAENC 1000 - Windows Internet Explorer
http://192.168.2.48/operator/addmodifyevent.shtml?action=add&index=5
Event Profile
Configuration
Enable Profile
Name :
DO2 Active
Description :
First Event
Second Event
Action
Configuration
DO
Email
FTP
HTTP
HTTP Server # 1
HTTP Server # 2
HTTP Server # 3
HTTP Server # 4
Go to HTTP Configuration
TCP Event Message
Go to TCP Configuration
Multicast Event Message
Go to Multicast Configuration
OK
Cancel
v1.0.6

4.2.5.4 Setting DO 2 'Inactive' event

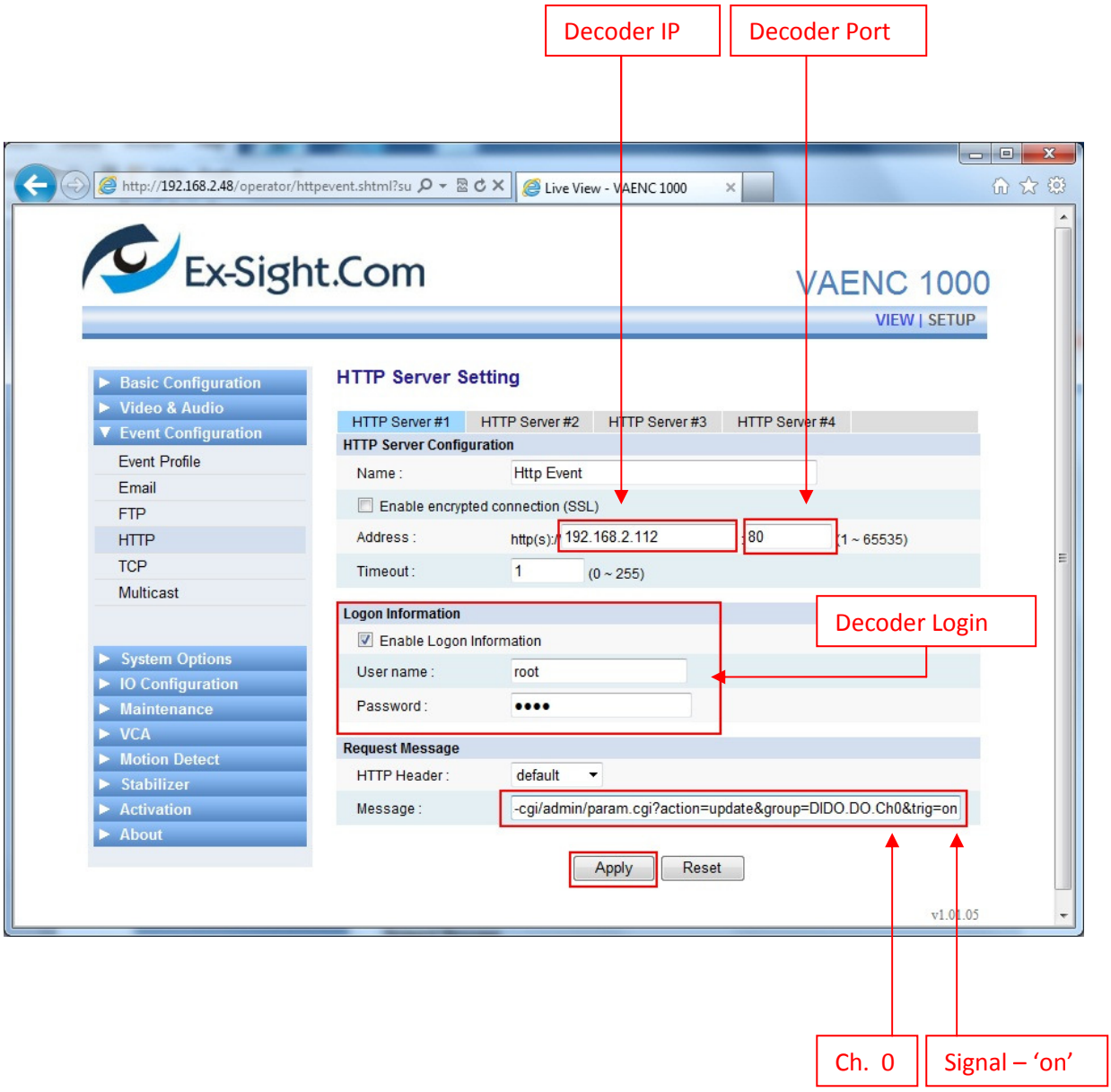
To add a new event, follow these steps

1. Event configuration->Event profile
2. Follow the screenshots below to complete the process




Live View - VAENC 1000 - Windows Internet Explorer
http://192.168.2.48/operator/addmodifyevent.shtml?action=add&index=6
Event Profile
Configuration
Enable Profile
Name :
DO2 Inactive
Description :
First Event
Second Event
Action
Configuration
DO
Email
FTP
HTTP
HTTP Server # 1
HTTP Server # 2
HTTP Server # 3
HTTP Server # 4
Go to HTTP Configuration
TCP Event Message
Go to TCP Configuration
Multicast Event Message
Go to Multicast Configuration
OK
Cancel
v1.0.6

4.2.5.5 Setting DO 1 send 'Active' event to decoder

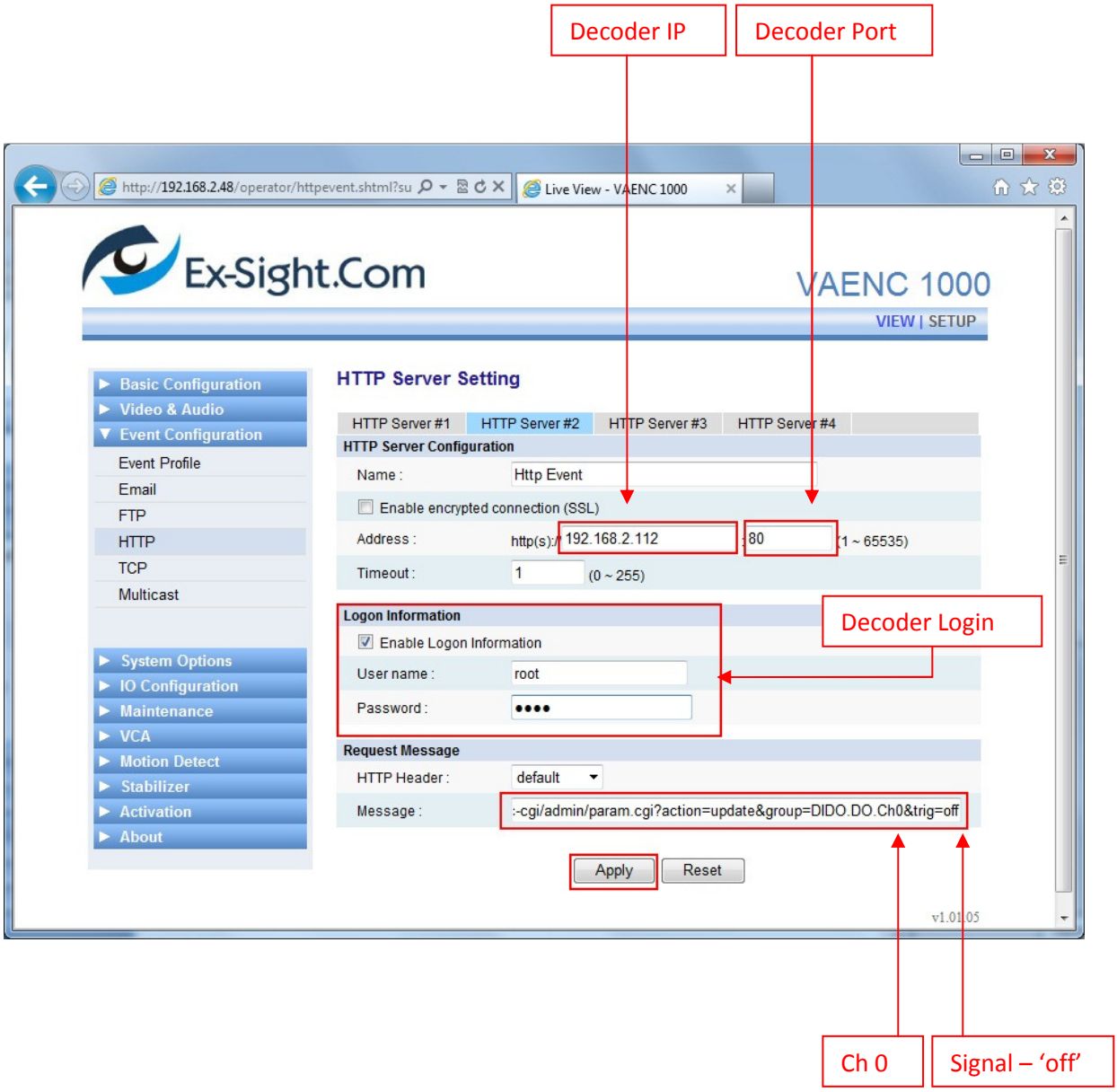


Message: **/nvc-cgi/admin/param.cgi?action=update&group=DIDO.DO.Ch0&trig=on**

Note: **Decoder default port is 80**

4.2.5.6 Encoder settings

DO 1 sends 'Inactive' event to the decoder

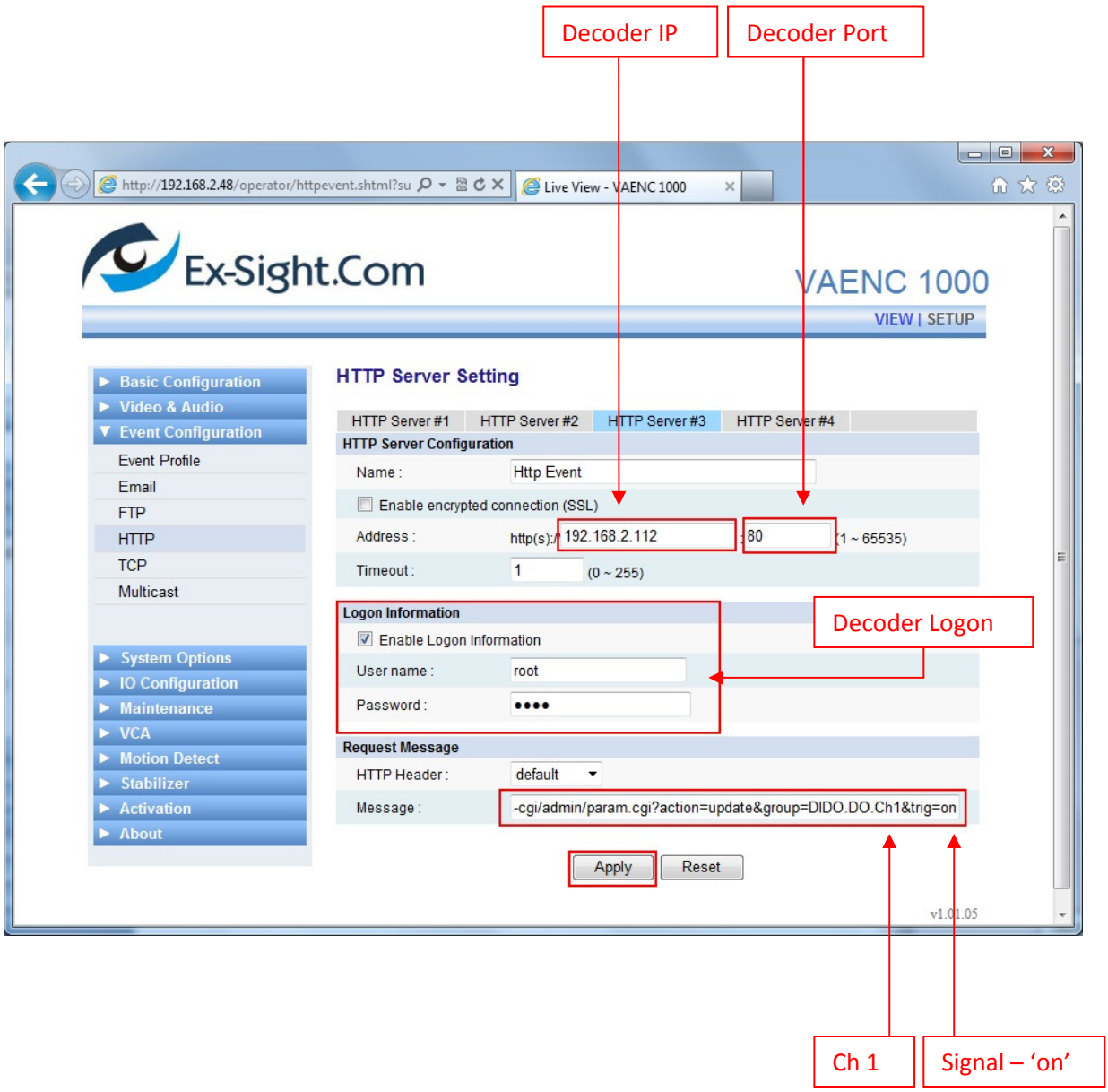


Message: **/nvc-cgi/admin/param.cgi?action=update&group=DIDO.DO.Ch0&trig=off**

Note: **Decoder default port is 80**

4.2.5.7 Encoder settings

DO 2 sends 'Active' event to the decoder

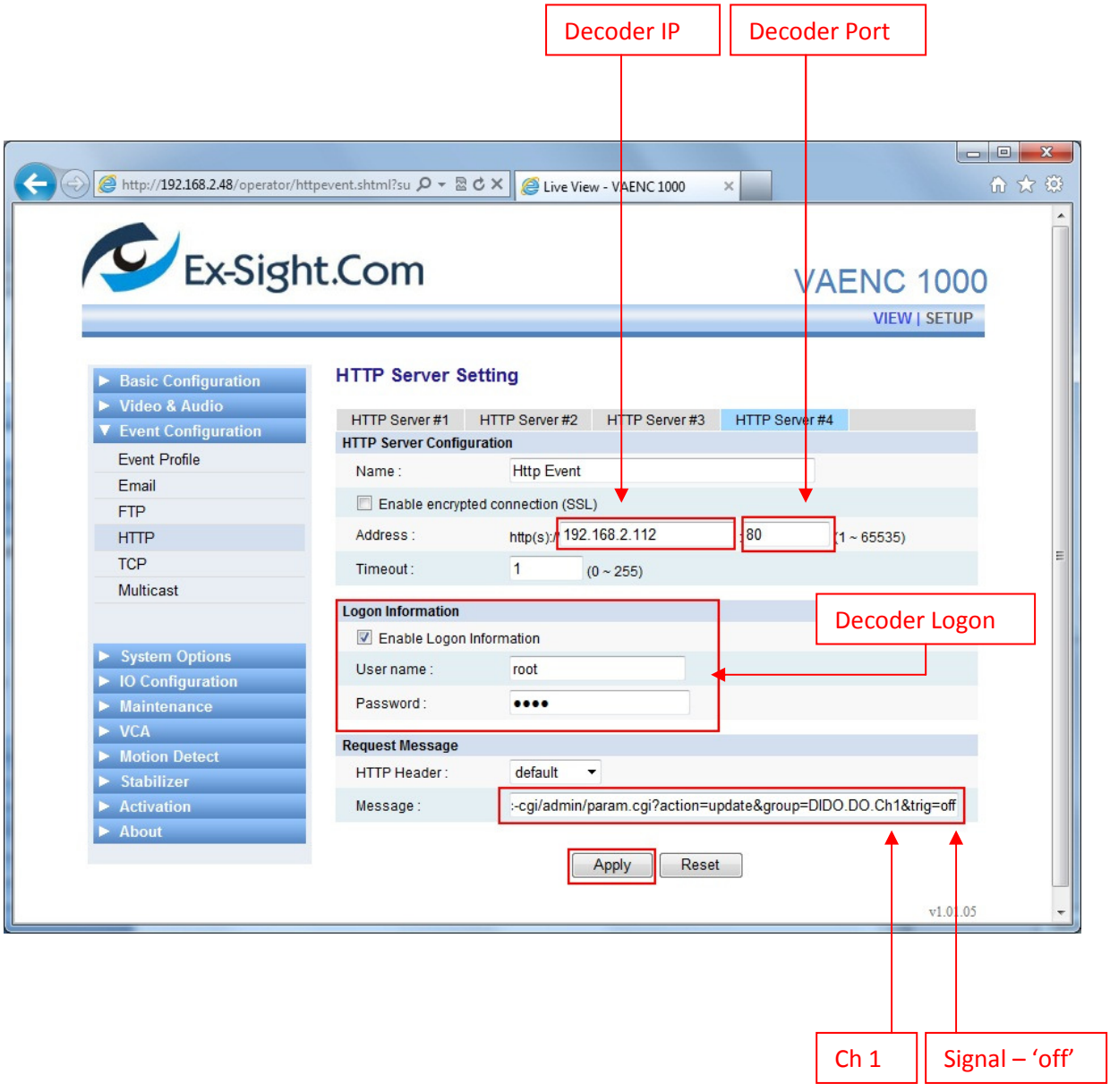


Message: **/nvc-cgi/admin/param.cgi?action=update&group=DIDO.DO.Ch1&trig=on**

Note: **Decoder default port is 80**

4.2.5.8 Encoder settings

DO 2 sends 'Inactive' event to the decoder



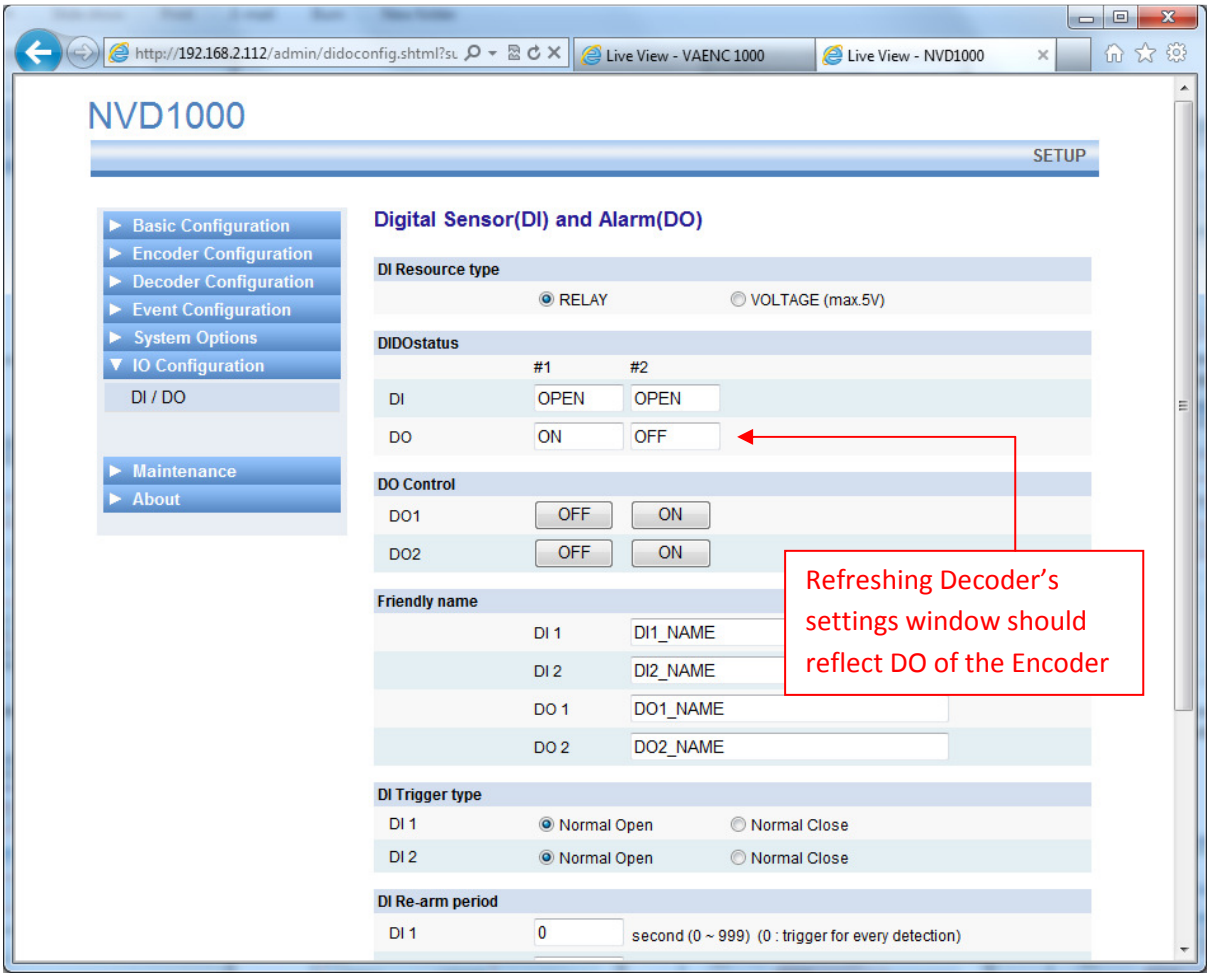
Message: **/nvc-cgi/admin/param.cgi?action=update&group=DIDO.DO.Ch1&trig=off**

Note: **Decoder default port is 80**

4.3 *Testing Configuration*

Set new DO in the Encoder settings window:

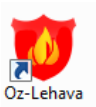
Check Decoder's DO in the Decoder settings window:



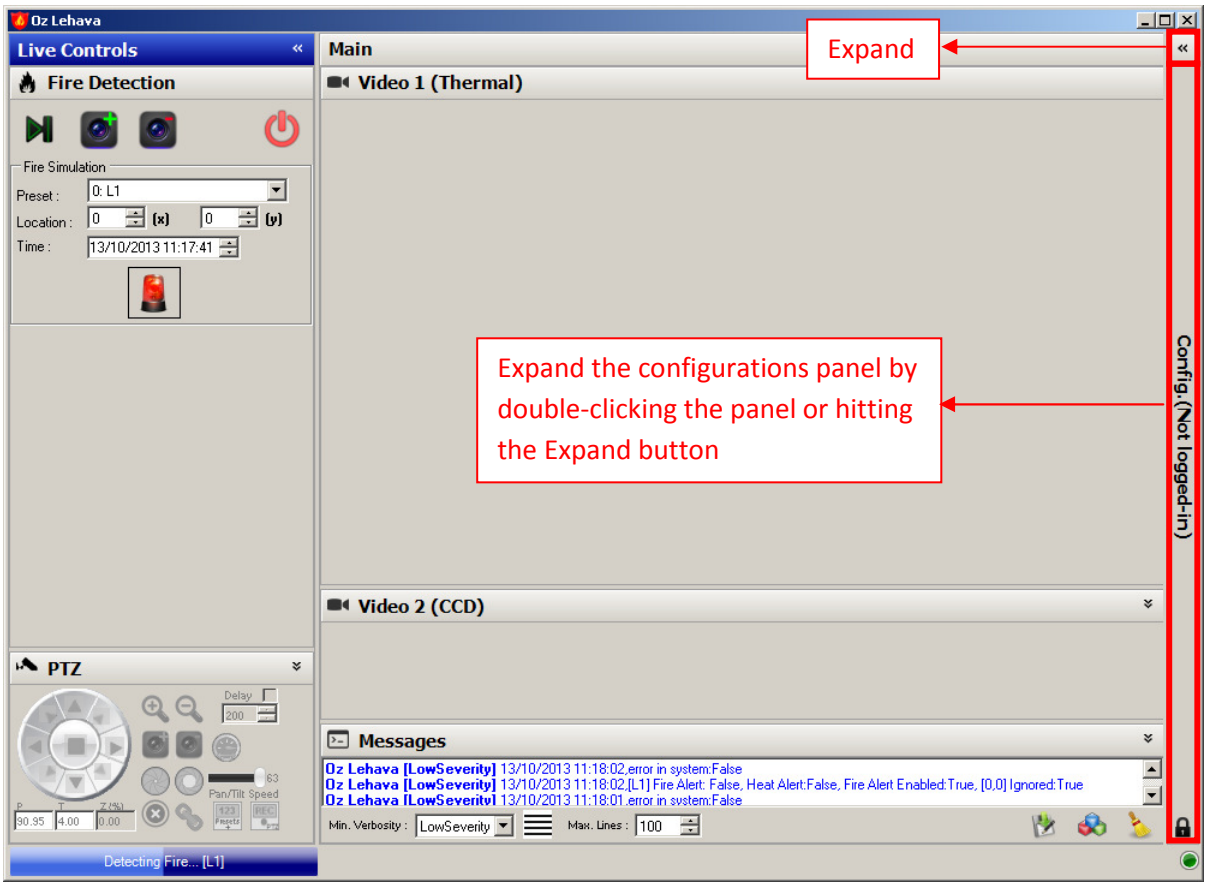
5 Software Usage

5.1 *First Time Usage (configure OZ-LEHAVA settings)*

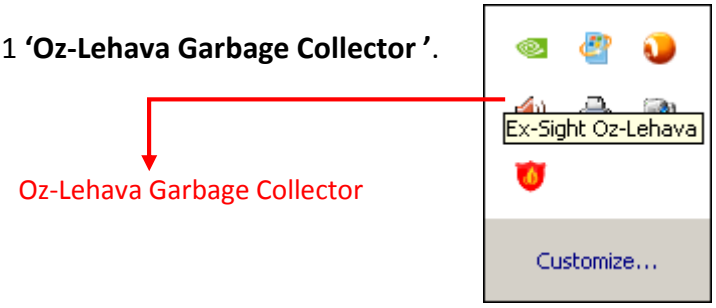
To start the software for the first time, click on the Oz-Lehava desktop shortcut.



The following screen will appear:

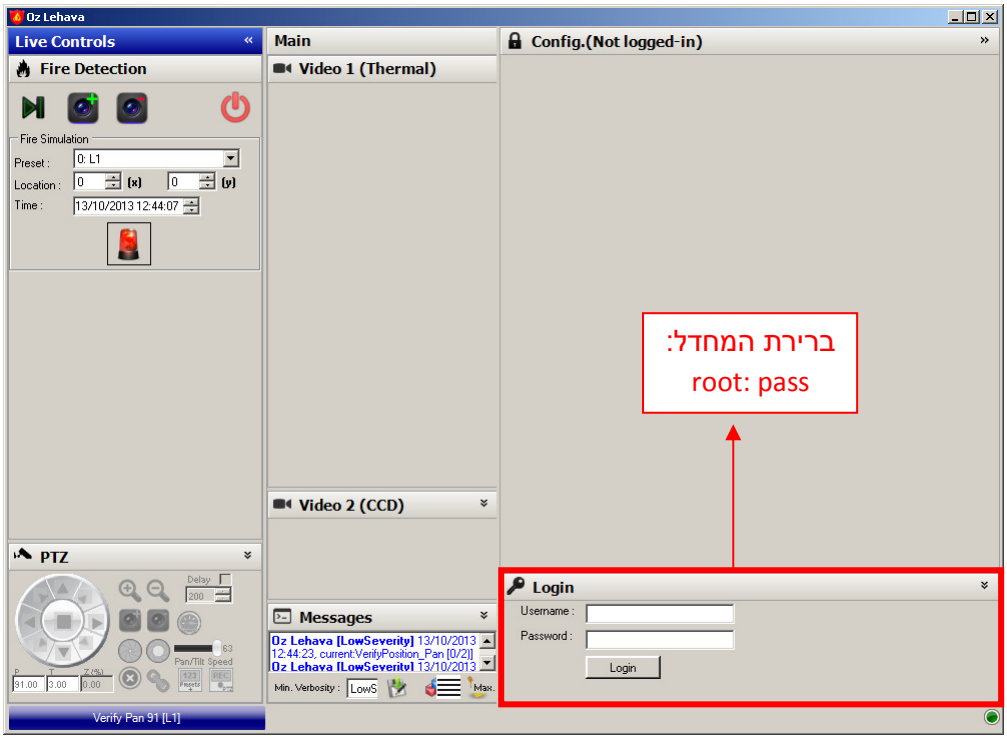


Oz-Lehava Garbage Collector functionality is loaded with the main application.
The corresponding icon will be added to the Windows notifications area as shown on the right ->
For more information, see section 5.11 **'Oz-Lehava Garbage Collector'**.



5.1.1 Logging-in

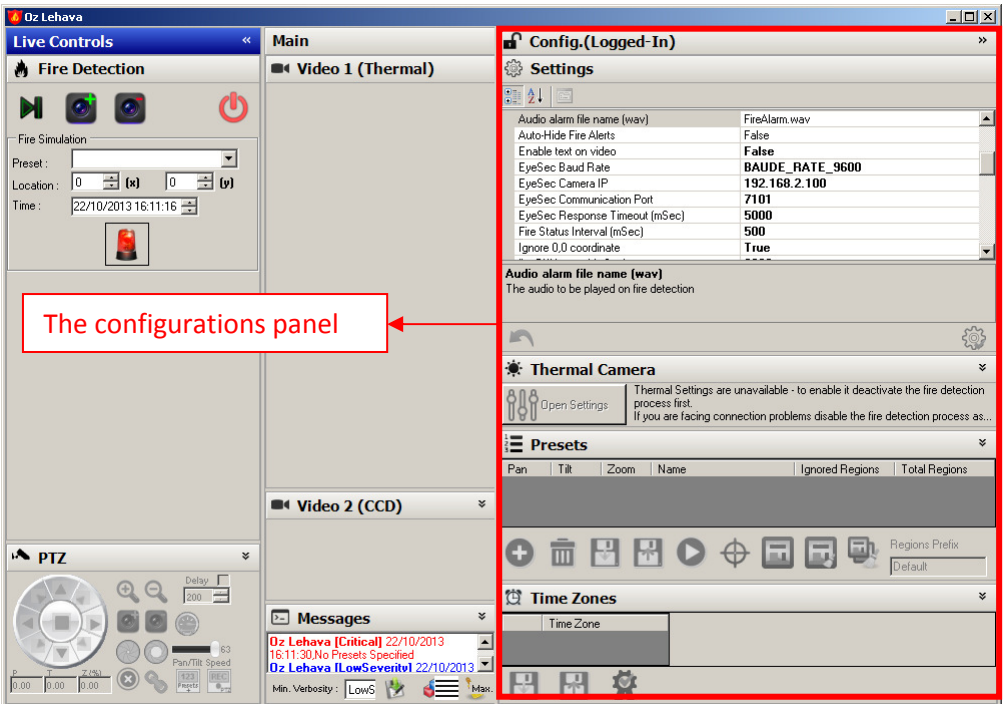
The system's configuration is login- password protected. In order to log-in, expand the configurations panel. The following panel will appear:



Enter the username composed of a password (default = root: pass) and a login to view the configurations panel.

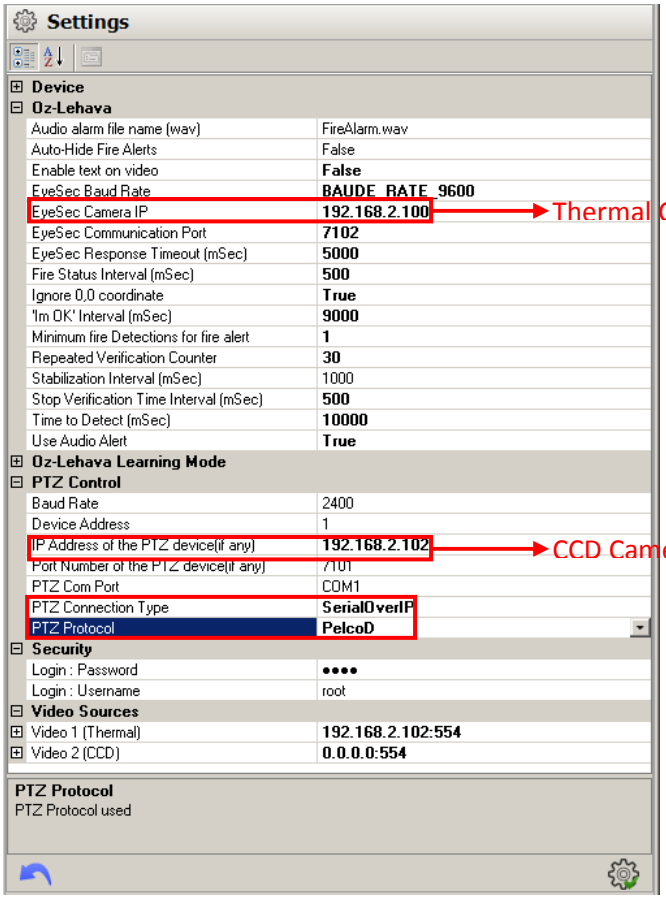
5.1.2 Quick configuration:

After your logging-in, the configurations panel will look like this:



Quick configuration (Continued)

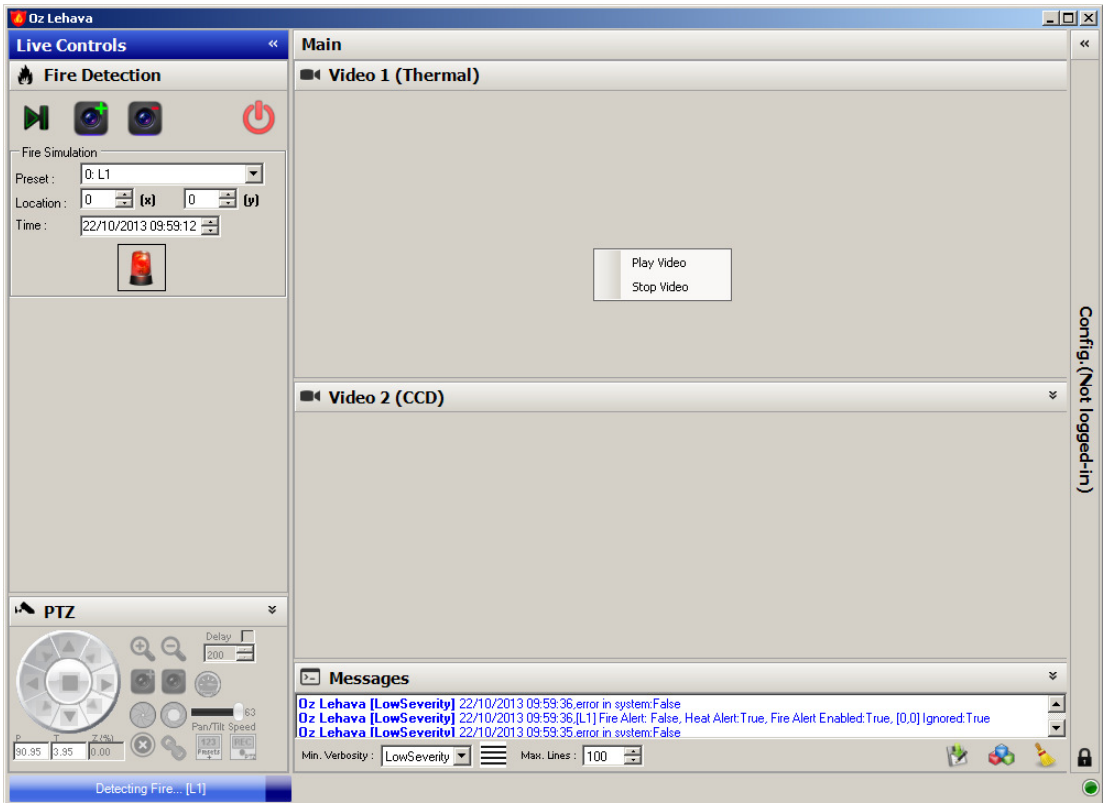
- Configure the settings marked in red and leave the rest in their default values.
- After the changes are made, the "Apply" button will light up ( ). Press it to apply changes.
- At this point, the system is ready to be **activated**
  (For more information, see section 5.10 'Settings').
- See section 5.2 'Live Video' for information about playing the Thermal & CCD videos.
- In order to manually move the camera, see section 5.3 'PTZ Panel'.



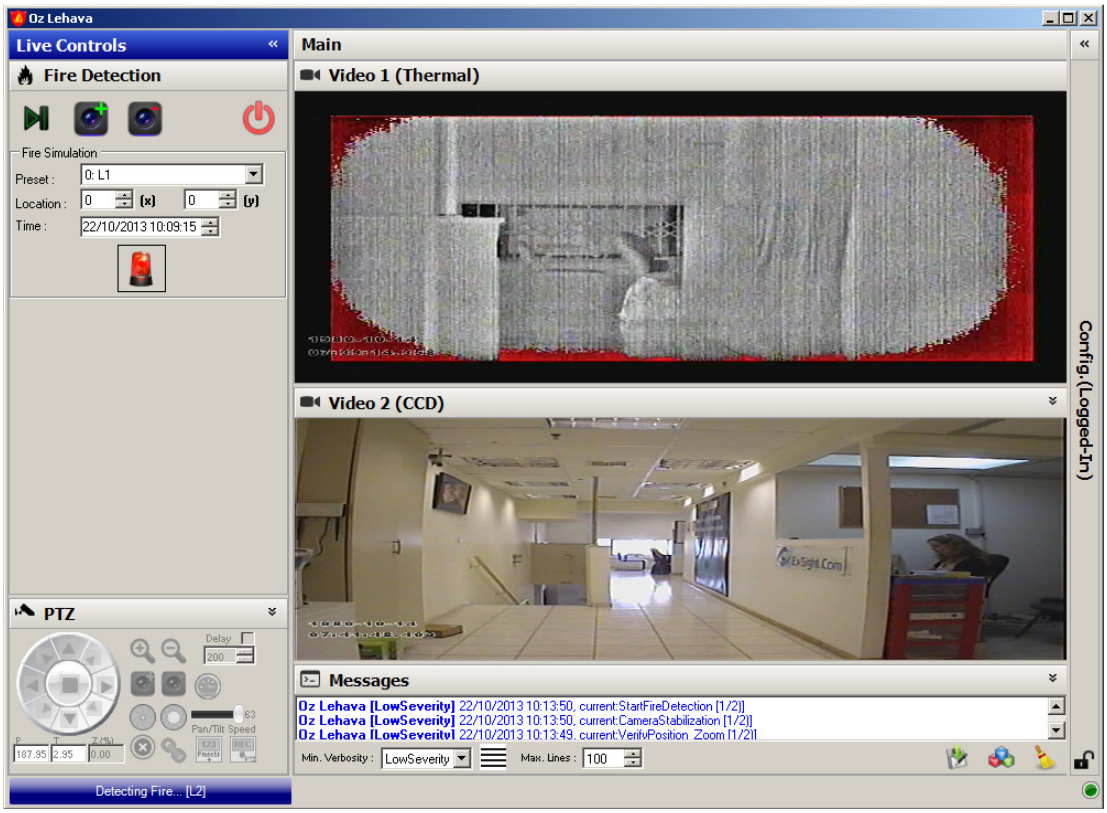
- **Before activation**, configure the presets which set the camera's scanning zones (see section 5.4 'The Presets Panel').

5.2 *Live Video*

After setting the IP address of the 2 cameras, view the live video by right-clicking the video panel and hitting 'Play Video' as can be seen below:



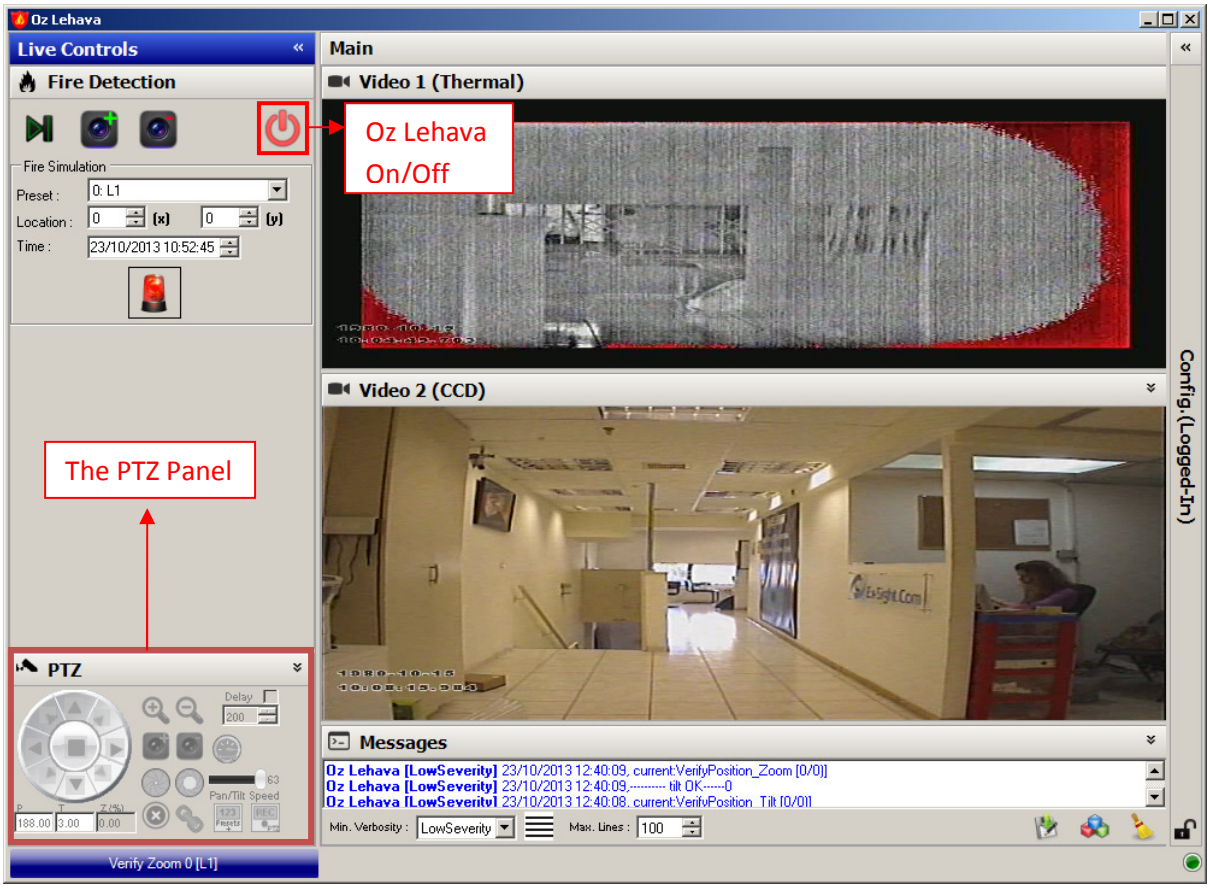
Then the thermal and CCD (day) video will be shown (as can be seen below):



5.3 *PTZ Panel*

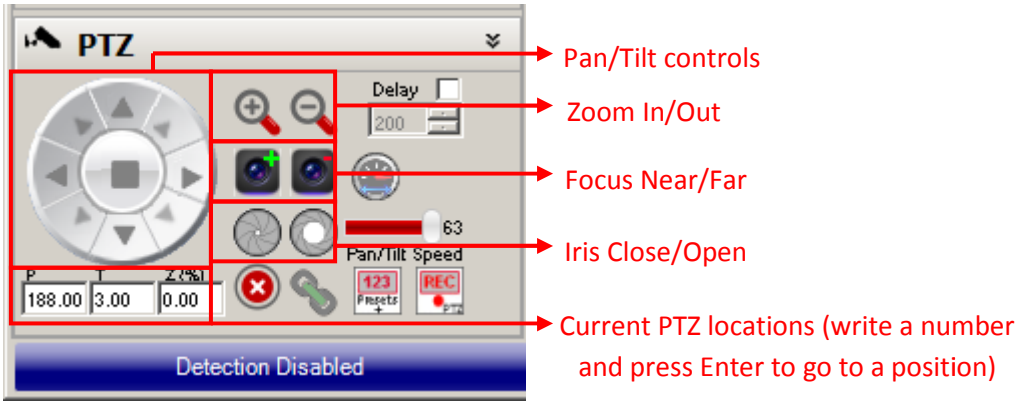
The **PTZ** (**P**an/**T**ilt/**Z**oom) panel controls the PTZ thermal camera.

When Oz-Lehava is active/on ( ) the panel is disabled, as shown below:



To enable this panel, press the Oz-Lehava button ( ) and set it to **deactivated/off** ( ).

Now PTZ Panel is enabled, as shown below:

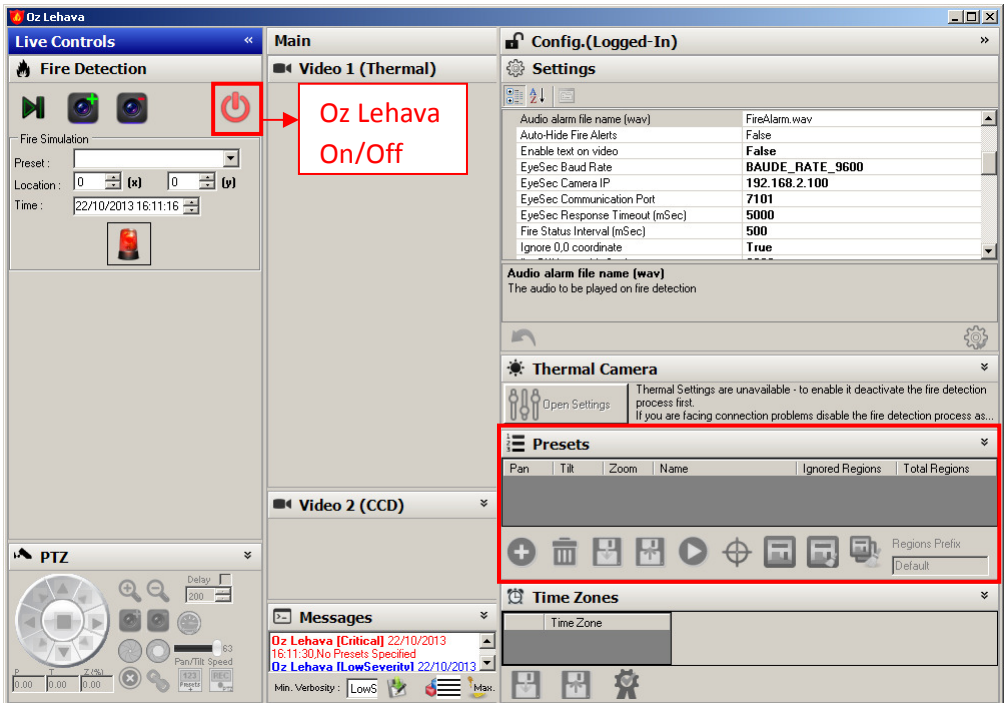


In most cases, the above described basic PTZ operation will be enough for Oz-Lehava.

For more information, see section 8 ‘Appendix A: PTZ Control’.

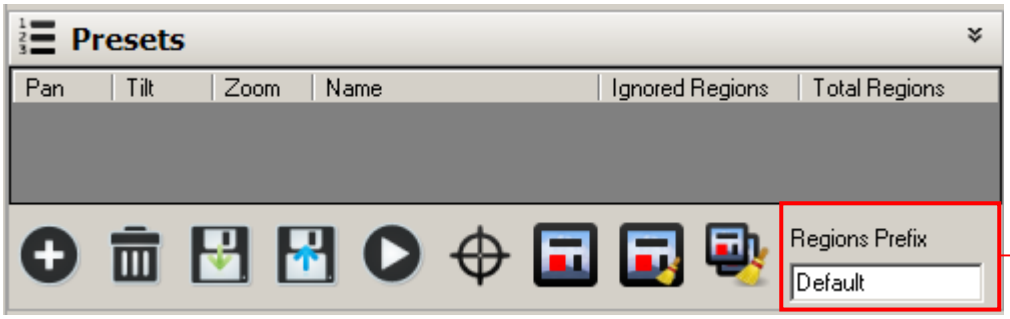
5.4 *The Presets Panel*

The **Presets Panel** appears under the Configurations panel, as shown below:



The **Presets Panel** allows the user to define scanning zones, in which fire is to be detected.

In order to enable the presets panel, you will first need to turn Oz-Lehava off by using the Oz-Lehava On/Off button (as shown above). Then the panel will be enabled (as shown below):



Buttons:

Add a new preset either manually (by typing the coordinates), or automatically (by directing the camera to the right position and clicking on the 'Add' button).

Delete a specific highlighted preset.

Save preset changes.

Load/reload presets.

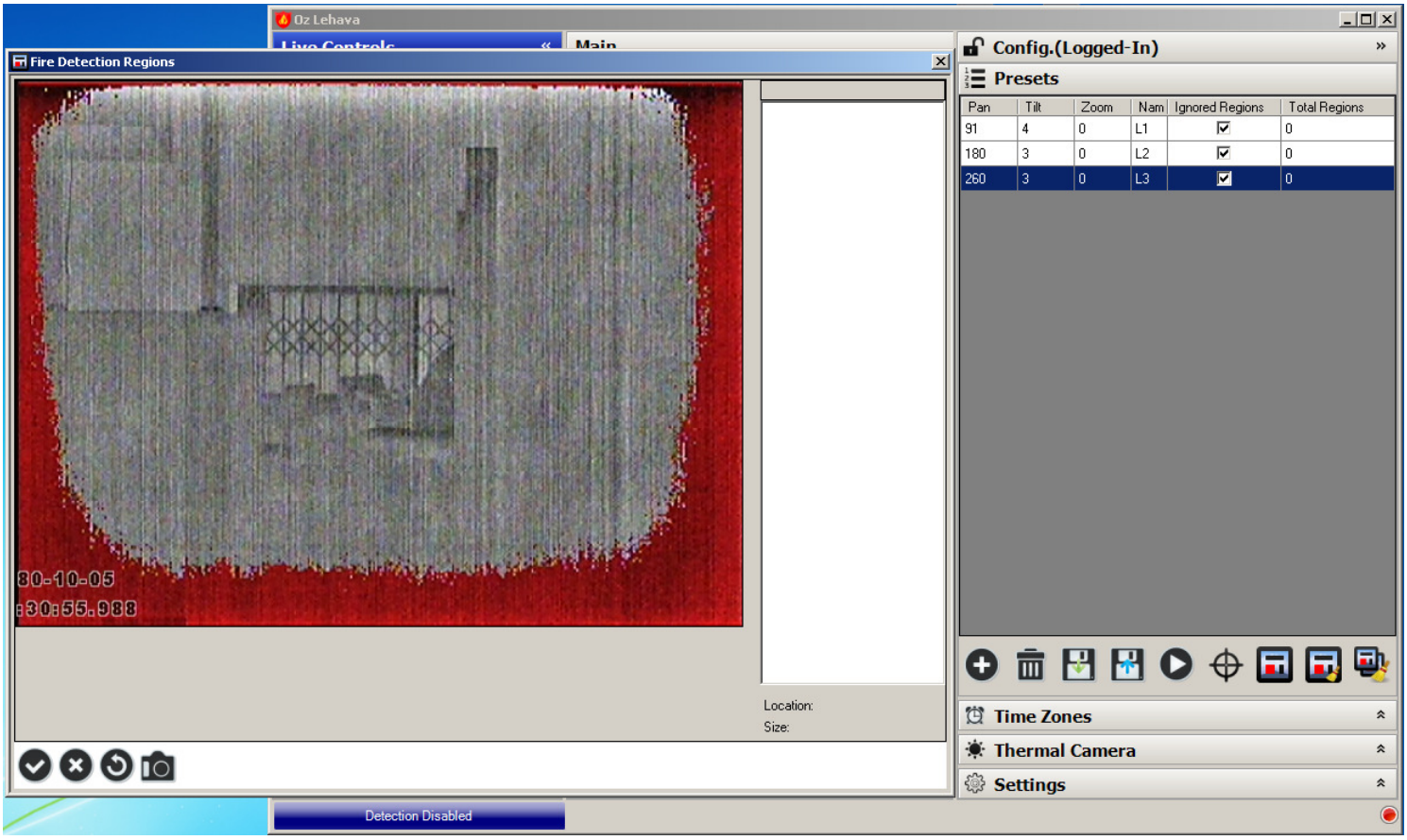
Go to the highlighted preset's location.

Test all presets locations by pressing the 'Simulate Presets' button.

Remove the selected preset regions.

Remove all regions from all presets in the table.

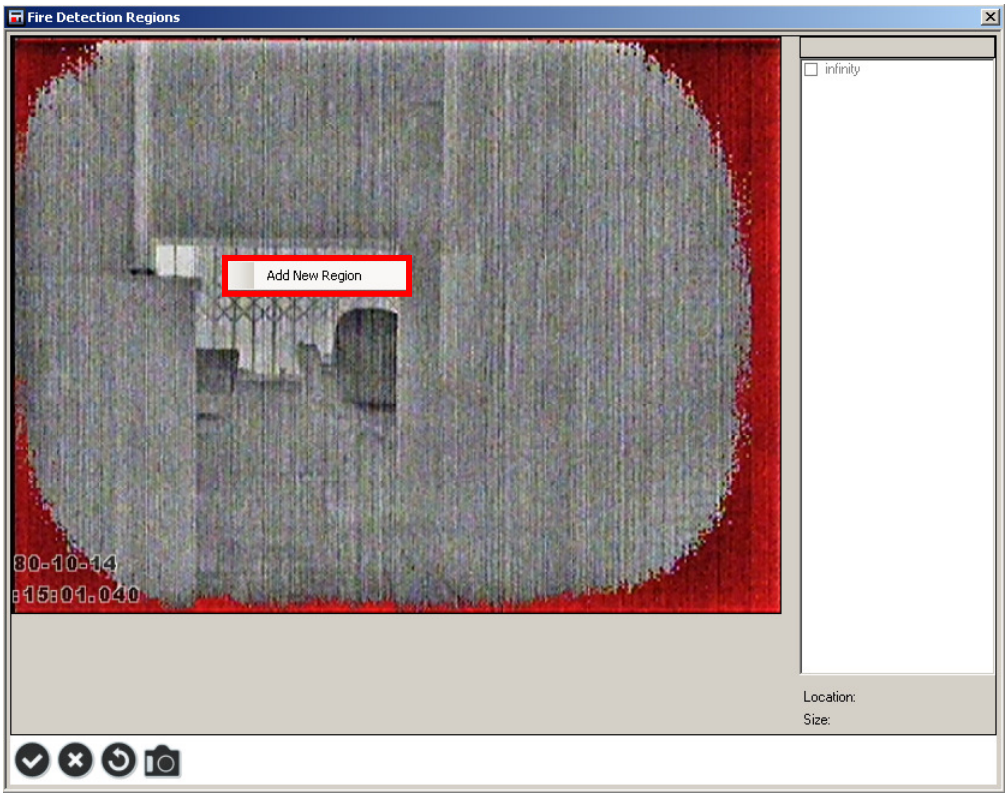
Press on 'Configure Detection/Non Detection Regions for Selected Preset'. The **Fire Detection Regions** window will appear on top of the application:



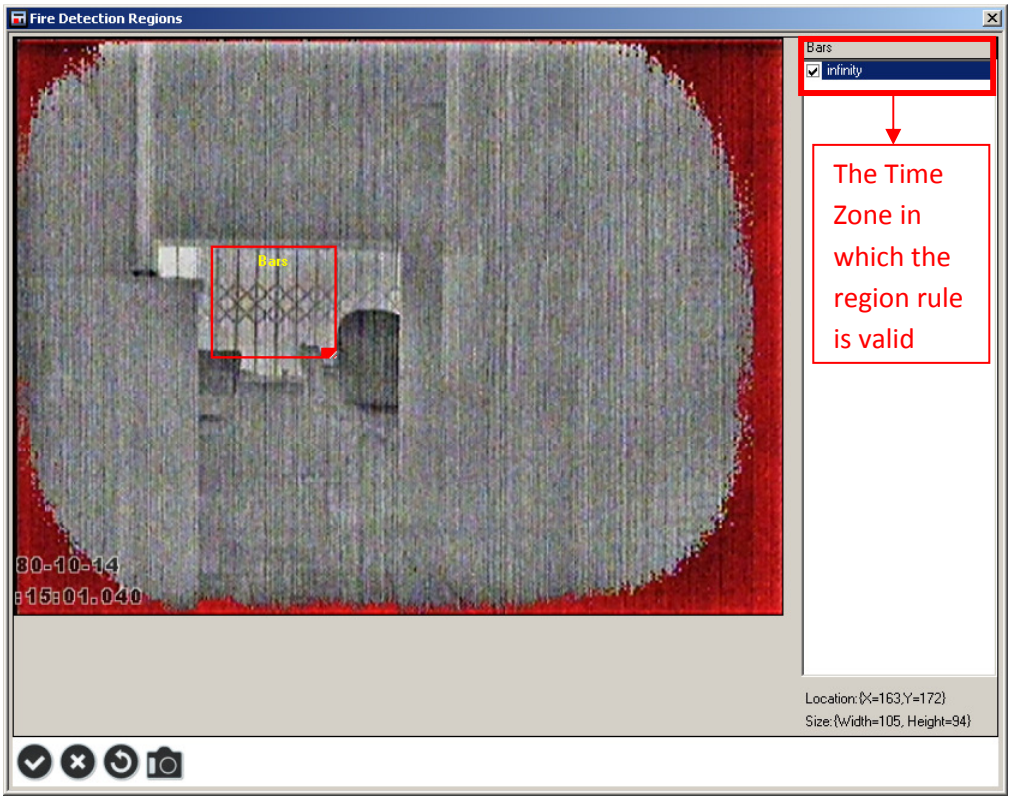
Press to receive the image in the given preset (if it has not been received yet).

Press to receive the image the camera is currently on (regardless of the preset)

To set the non detection region as unmarked, follow these steps:
Right click on the screen. The “Add Region” icon will appear:



Left click the icon and drag the cursor until the desired region is covered.



After the non-detection region is marked, the time period during which detection must be ignored, is displayed. In order for the region rule to be valid, at least one Time Zone should be configured (for more about Time Zones see section 5.5 'Fire Detection Time Zones').

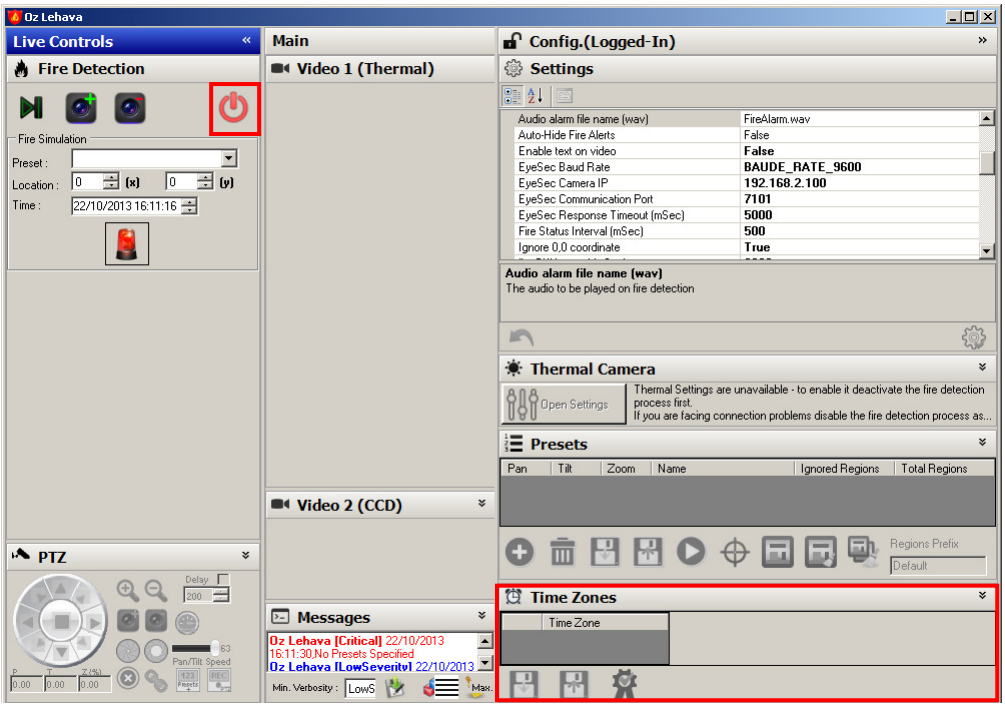
To remove the marked region, right click on the screen. You will get the "Remove Region" icon. Left click this icon to remove the region.

Press to save your changes and exit the regions window.

Press or to discard your changes and exit the regions window (closing the window does the same).

5.5 *Fire Detection Time Zones*

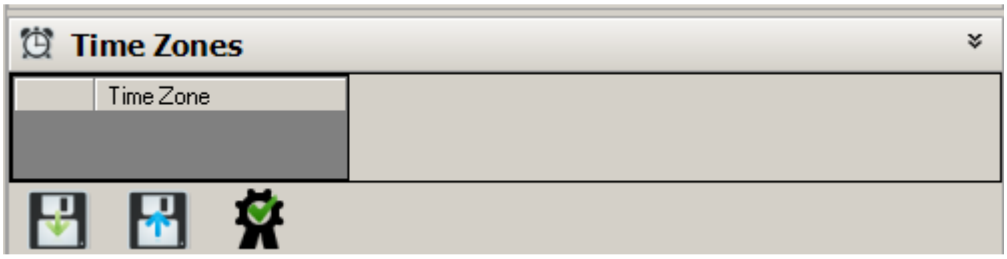
The Time Zones Panel appears under the Configurations panel, as shown below:



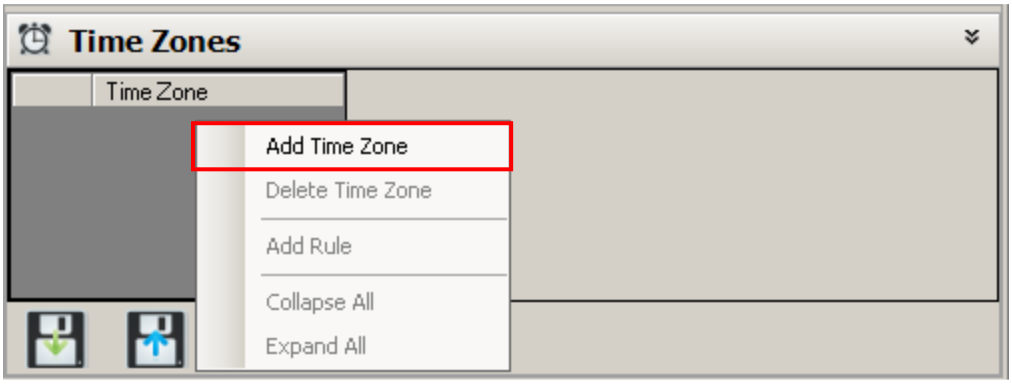
Oz Lehava On/Off

The **Time Zones** allow the user to define time zones, in which fire is to be detected/ignored (For example, create a time zone that commands the application to ignore fire detections on working days & hours in a facility with permanent fire environment).

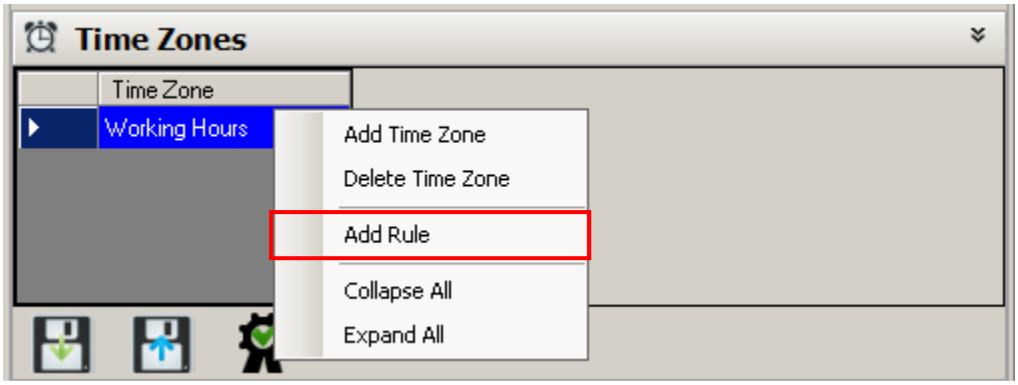
In order to enable the time zones panel, first turn Oz-Lehava off by using the Oz-Lehava On/Off button (as shown above). Then the panel will be enabled (as shown below).



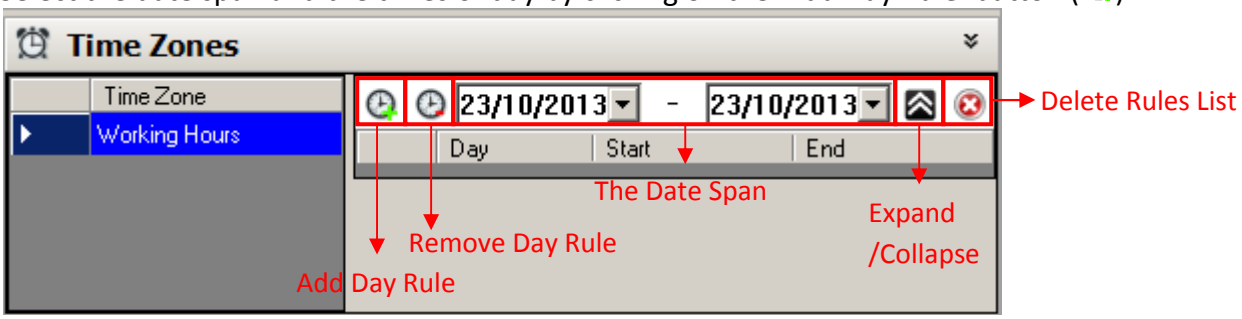
To add a Time Zone right-click the time zone grid and click ‘Add Time Zone’ (as seen below).



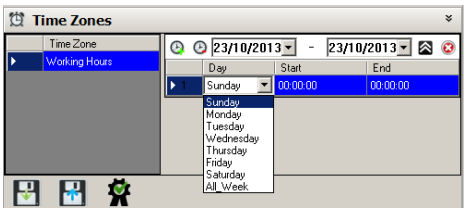
Name the time zone and then right-click the row and click ‘Add Rule’ (as seen below).

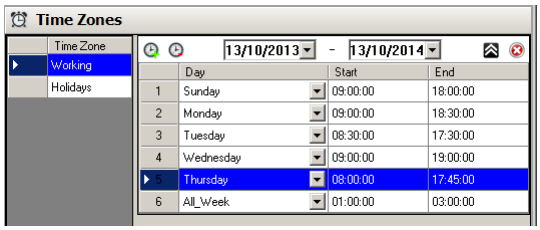


Select the date span and the times of day by clicking on the 'Add Day Rule' button ( )

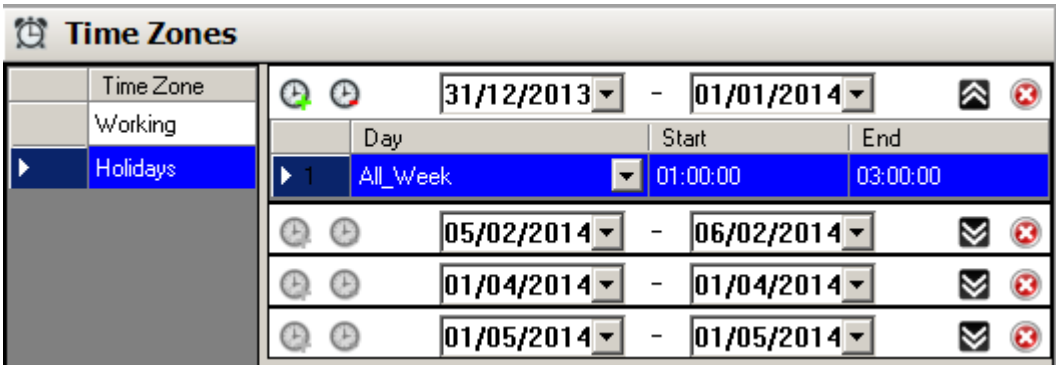


Add the day rule for a specific day or for all days in that date span and set the times of the day.





You can add multiple time zones and multiple time zone rules to the same time zone as shown below:



Buttons:

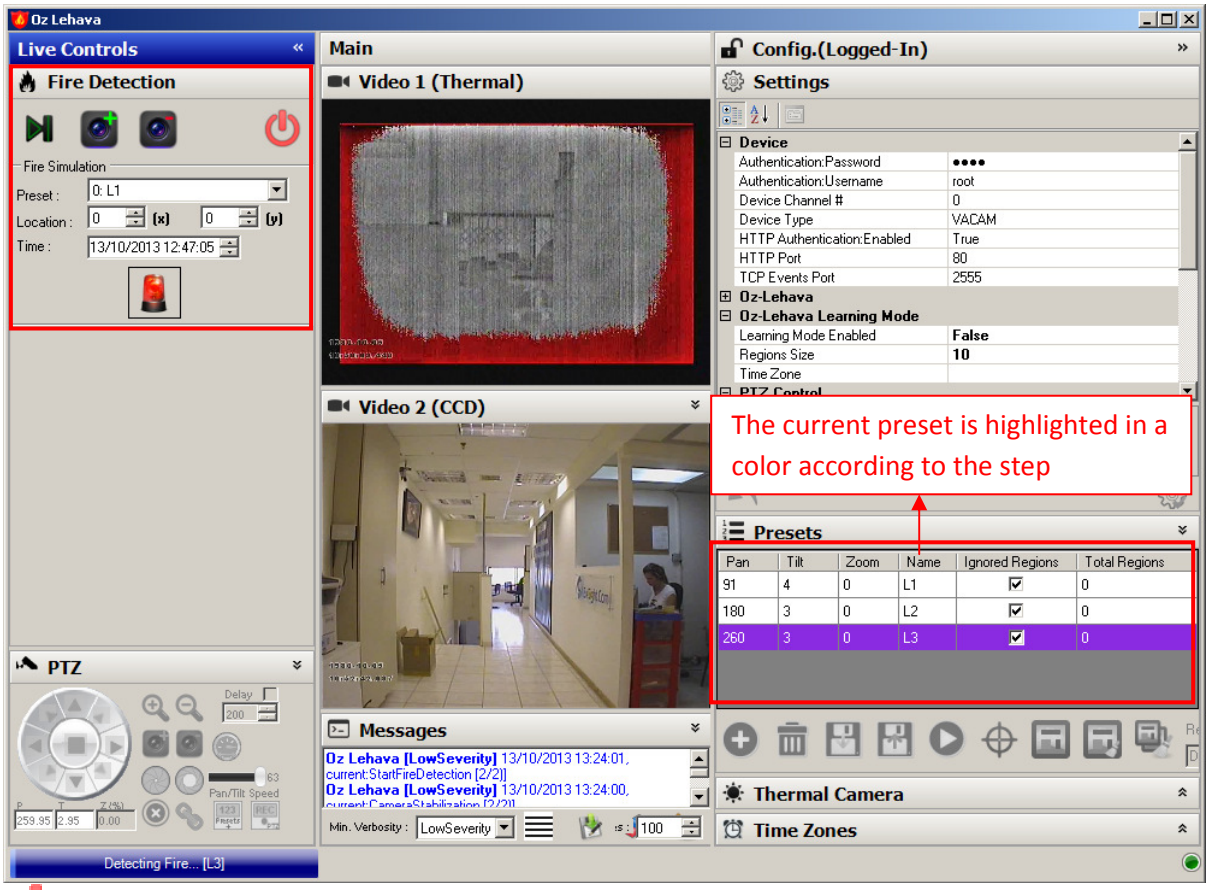
Save time zone changes.

Load previously saved time zones.

Validate the time zones.

5.6 *Fire Detection Panel*

The **Fire Detection Panel** allows the user to actively control the detection process as well as simulate fire alarms. The panel is located under the **Live Controls Panel** as shown below:



Oz-Lehava On/Off (activate/deactivate) button:

Pressing this button turns the fire detection process on/off. This button must be off in order to configure Thermal Camera settings, presets & time zones, as well as to enable the PTZ panel.

Note: If connection is lost, the application will try to reconnect every few seconds.

Go to Next Preset:

Stops current thermal camera action and skips to the next preset.

Focus Near (Thermal):

Is used to closely focus the thermal camera

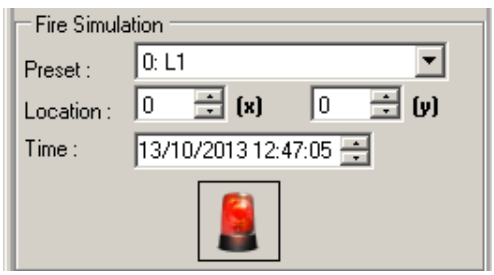
Focus Far (Thermal):

Is used to focus the thermal camera far.

Fire Simulation:

Pressing this button will simulate fire according to the following parameters->

- Preset: The preset in which 'fire' occurs.
- Location: The location of the 'fire' (in

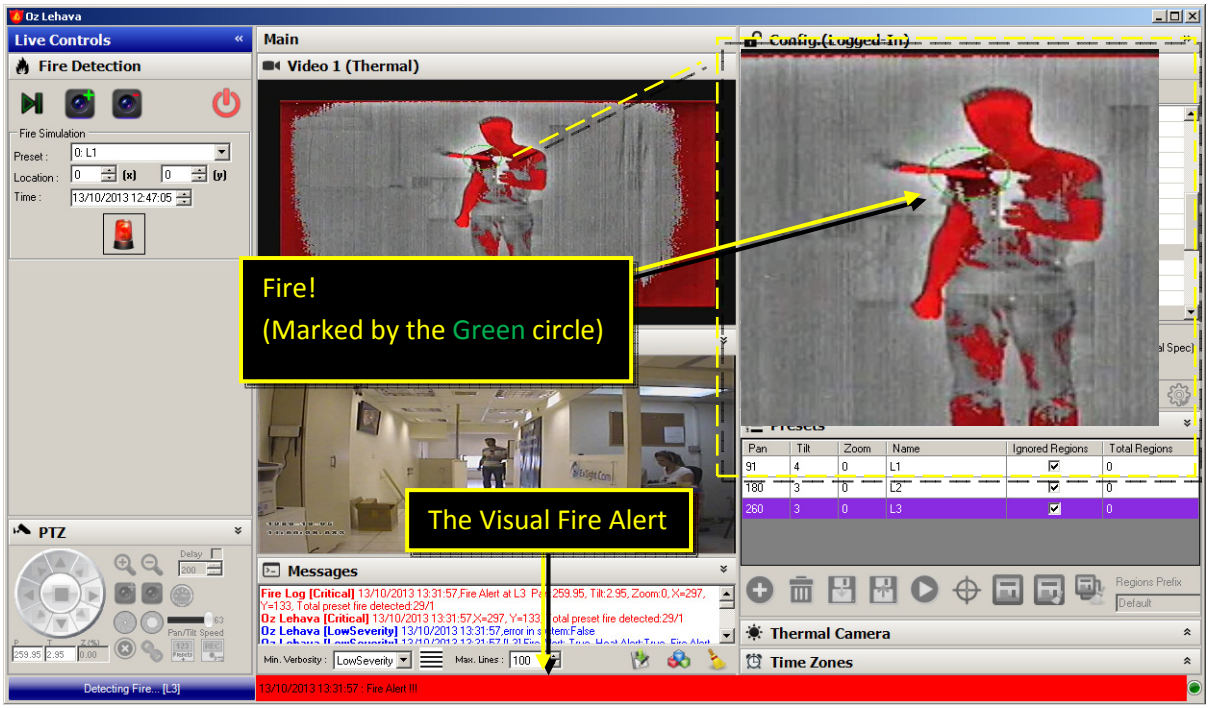


screen coordinates).
- The time of the ‘fire’.

If the parameters of the ‘fire’ match, the application will raise a real fire alarm.

5.6.1 Fire Detection Example

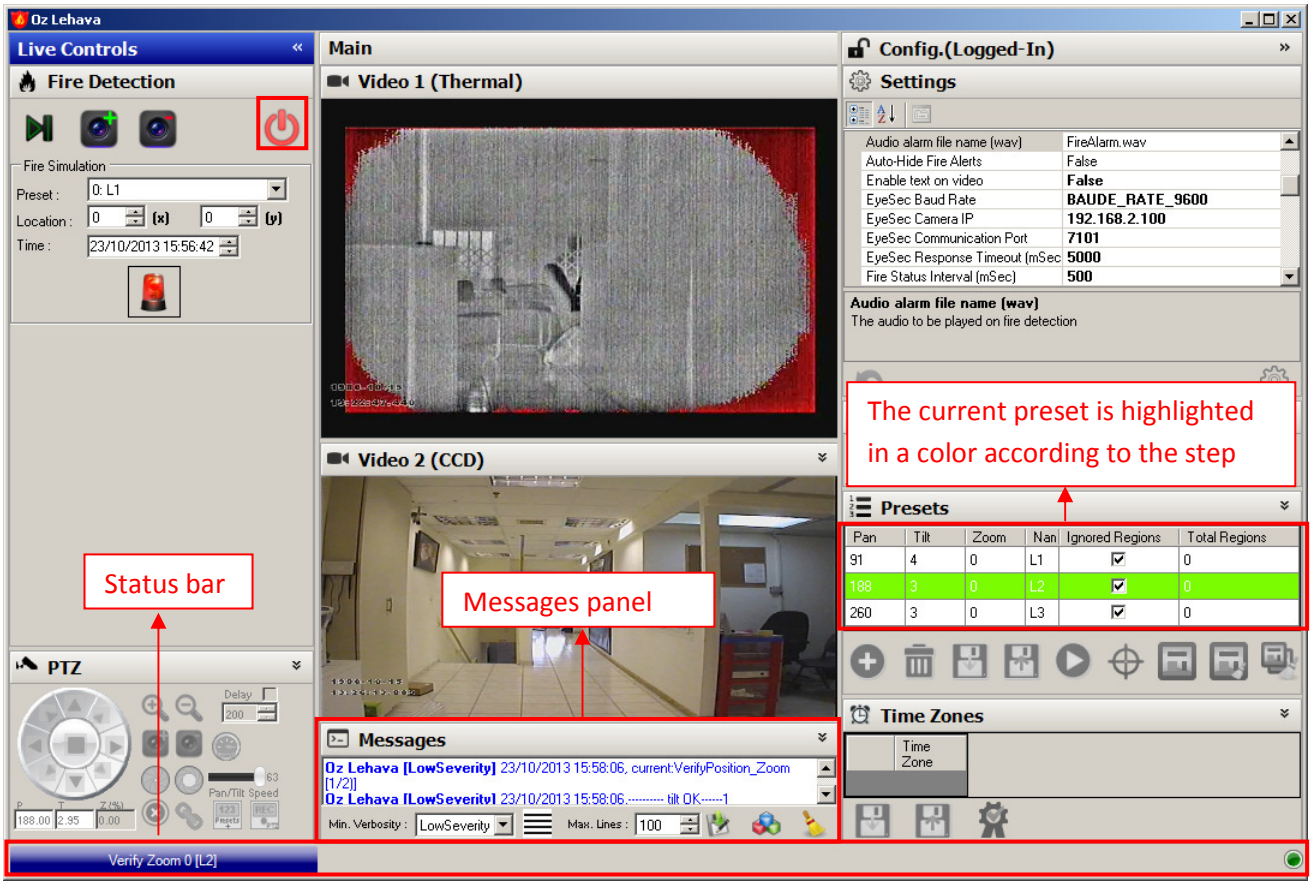
Below is real-life fire detection as it appears in the application:



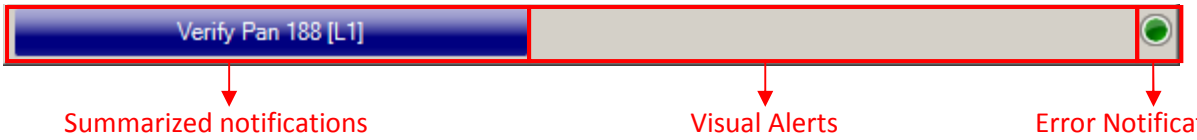
5.7 *Live Indicators & Messages*

Oz Lehava On/Off →

Oz-Lehava constantly updates its live indicators & message box, as can be seen below:



5.7.1 Status bar



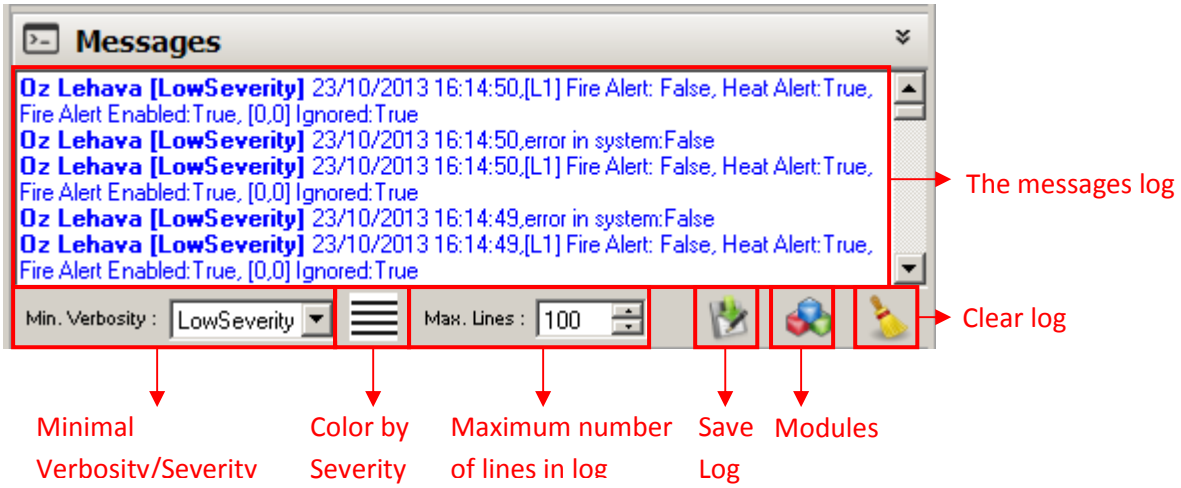
- **Summarized notifications:**
  Displays the current step of the Fire Detection Preset Cycle (see section 2.3 for all steps).

    - When the step is 'Detecting fire', the bar will fill up according to the detection time frame detection for the current preset.
- **Visual Alerts:**
  Shows graphic fire alerts in **Red** (in addition to voice alerts) and failure alerts in **Yellow** as can be seen below:

  Visual alerts can be dismissed by right-clicking them and pressing "Dismiss":

- **Error Notification:**
    - Green ( ): "Oz-Lehava" works without any errors.
    - Red ( ): Either an error has occurred, or "Oz-Lehava" has been disabled.

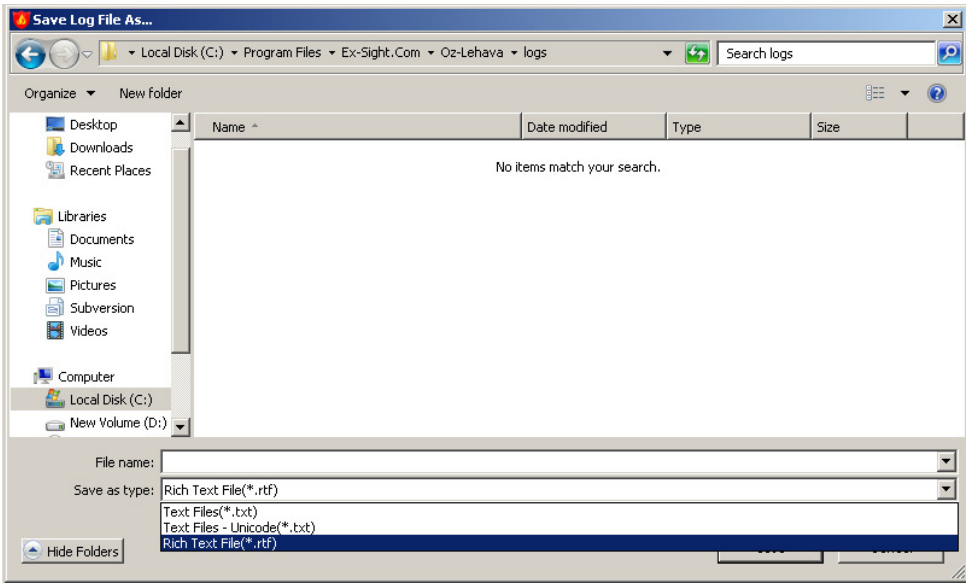
5.7.2 Messages Panel


Messages
Oz Lehava [LowSeverity] 23/10/2013 16:14:50,[L1] Fire Alert: False, Heat Alert:True, Fire Alert Enabled:True, [0,0] Ignored:True
Oz Lehava [LowSeverity] 23/10/2013 16:14:50,error in system:False
Oz Lehava [LowSeverity] 23/10/2013 16:14:50,[L1] Fire Alert: False, Heat Alert:True, Fire Alert Enabled:True, [0,0] Ignored:True
Oz Lehava [LowSeverity] 23/10/2013 16:14:49,error in system:False
Oz Lehava [LowSeverity] 23/10/2013 16:14:49,[L1] Fire Alert: False, Heat Alert:True, Fire Alert Enabled:True, [0,0] Ignored:True
Min. Verbosity :
LowSeverity
Max. Lines :
100
The messages log
Clear log
Minimal Verbositv/Severitv
Color by Severity
Maximum number of lines in log
Save Log
Modules

- **Minimal Verbosity/Severity**:
  Minimal message classification
  - **Debug:** All messages
  - **LowSeverity:** Critical alerts and camera status
  - **Critical:** Fire alerts, Oz-Lehava enabled/disabled, connection failures and exceptions
- **Color by Severity:**
  Press this button to color/uncolor messages according to their severity.

- **Save Log:**

  Pressing this button will open the “Save Log Dialog” as shown below:



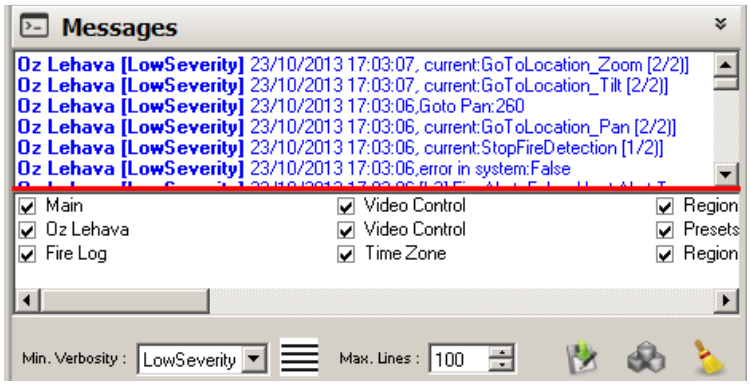
  The log file must be saved as:

  - Text Files – Regular text file format.
  - Text Files – Unicode for preserving special characters
  - RTF (Rich Text Format) for preserving the line colors as well.

  Note: Only the messages that currently appear in the messages panel can be saved as described above.

- **Modules**

  Check/Uncheck this button in order to see all the modules that can send messages (Uncheck a module if you want to stop seeing messages sent by it).

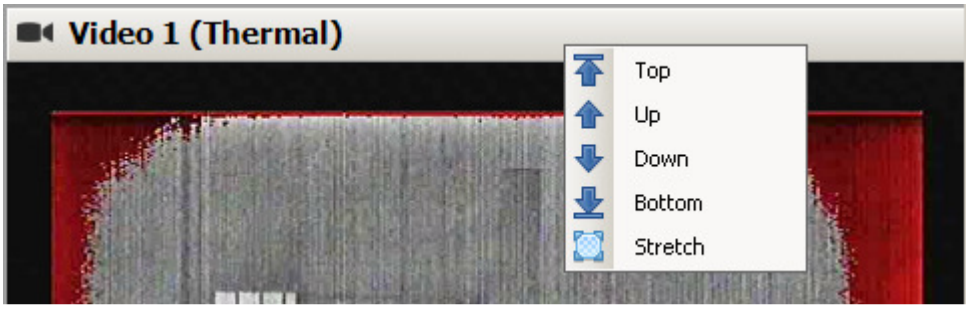


- **Clear Log**

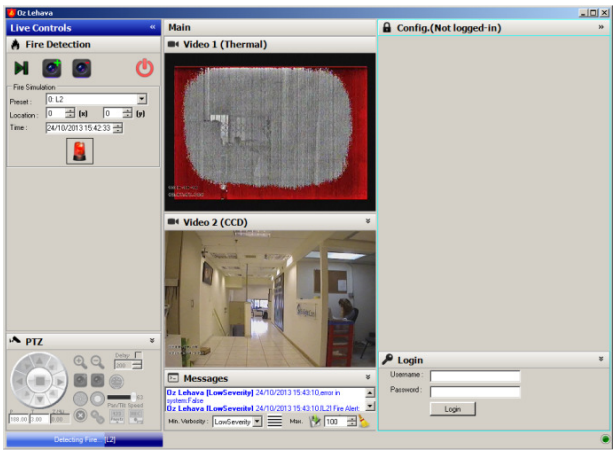
  Clears all the current messages from the panel

5.8 *Layout Manipulation*

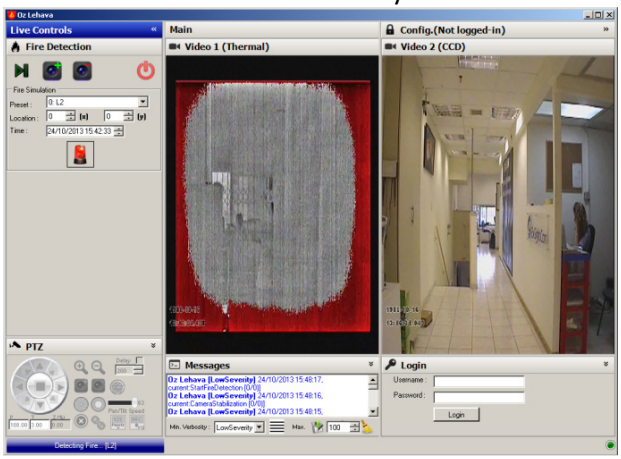
When you right-click any panel in the application, you will get the options below:



- These options enable you to manipulate the application's layout as follows:
  - Change the panels order
  - Stretch the selected panel over the entire blank region in the panel containers.
  - The panel containers are the following:
    - The Live Controls Panel
    - The Main Panel
    - The Configurations Panel
- Video 2(CCD) panel has a special **dragging** capability**.**
  - You can drag this panel's header in order to move it to any panel container as can be seen below:

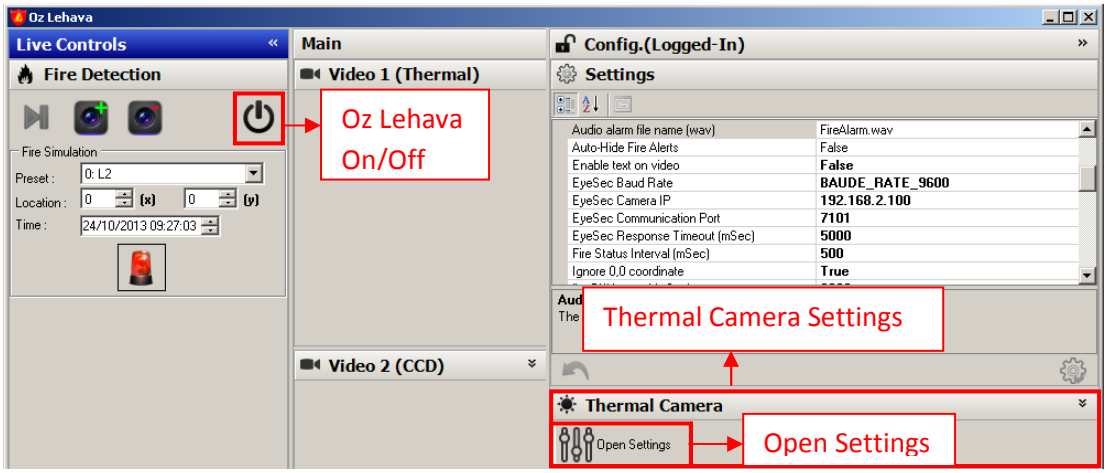


  - After stretching the Video 2 (CCD) panel, you can get the layout below in which video 1 & video 2 are seen side by side:

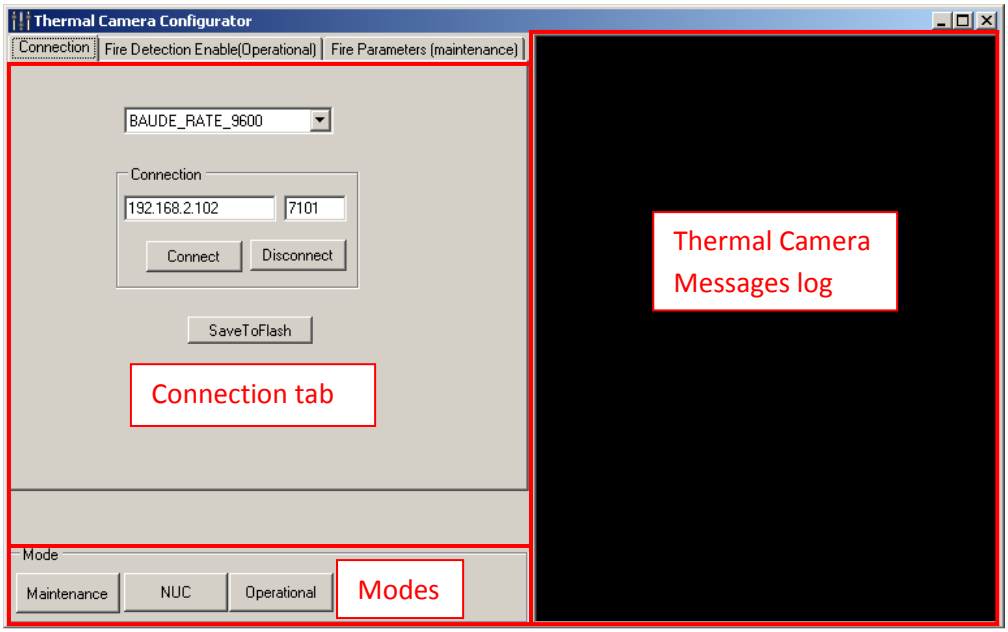


5.9 *Thermal Camera Settings*

Note: Thermal camera changes should be handled with care and only after getting professional help regarding the thermal camera.
When Oz-Lehava is off the thermal camera settings will be enabled, as shown below:



Press the 'Open Settings' button and the following window will appear **(Connection Tab)**:



Modes

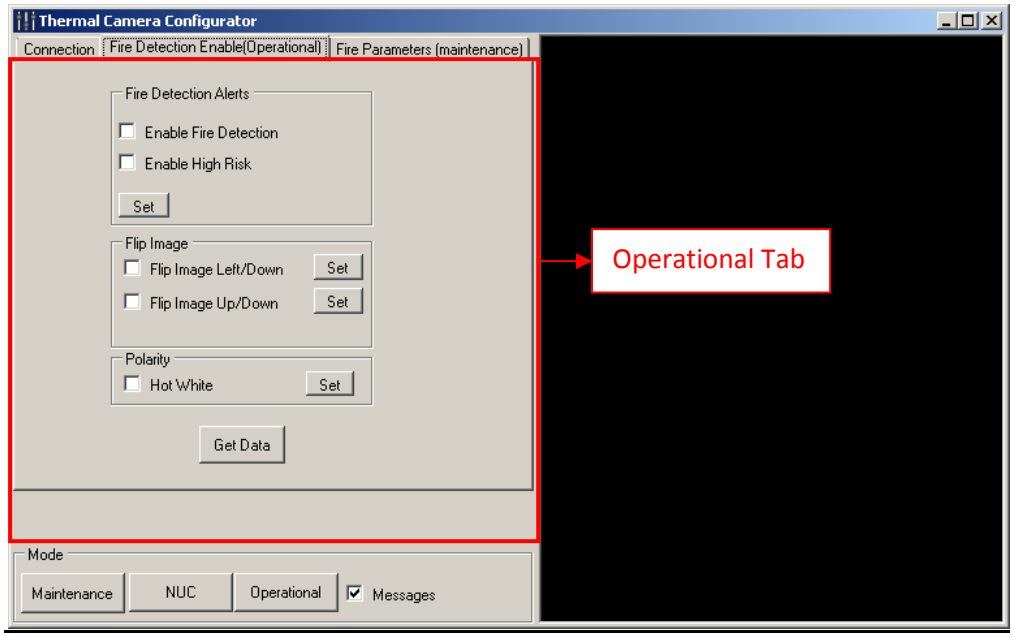
- **Maintenance**:
  Press this button if you want to get/set values that appear in the maintenance tab.
- **NUC**:
  Performs thermal sensor initialization (you can hear it happening).
- **Operational**
  Press this button if you want to change values in the operational tab.

- ***Note:*** Before exiting the thermal settings window you must press this button in order to make sure that the camera is in the operational mode, so it could continue to detect fire.

Connection Tab

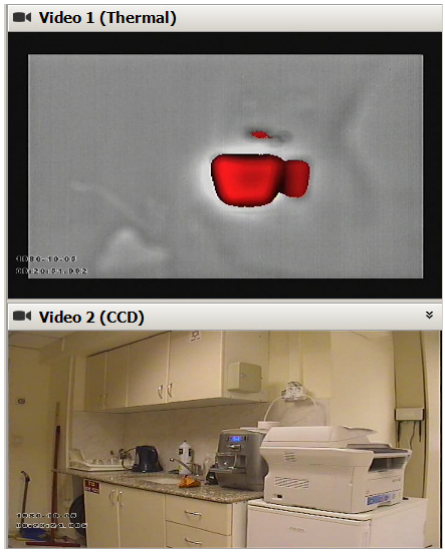
- **Connect/Disconnect**
  After setting the correct values of IP, port & baud rate, you can connect/disconnect to/from the thermal camera.
- **SaveToFlash**
  Saves the changes you have made in the maintenance mode to the camera's memory.

5.9.1 Operational Tab



Fire Detection Alerts

- **Enable Fire Detection:**
  Enables/Disables the fire detection capability of the camera.
- **Enable High Risk:**
  When checked, the bodies above the temperature threshold will appear in red, as can be seen in the example on the right (the glass is full with hot water, which appears red in the thermal video). In order to apply these settings, check/uncheck the relevant checkboxes and click the **Set** button.



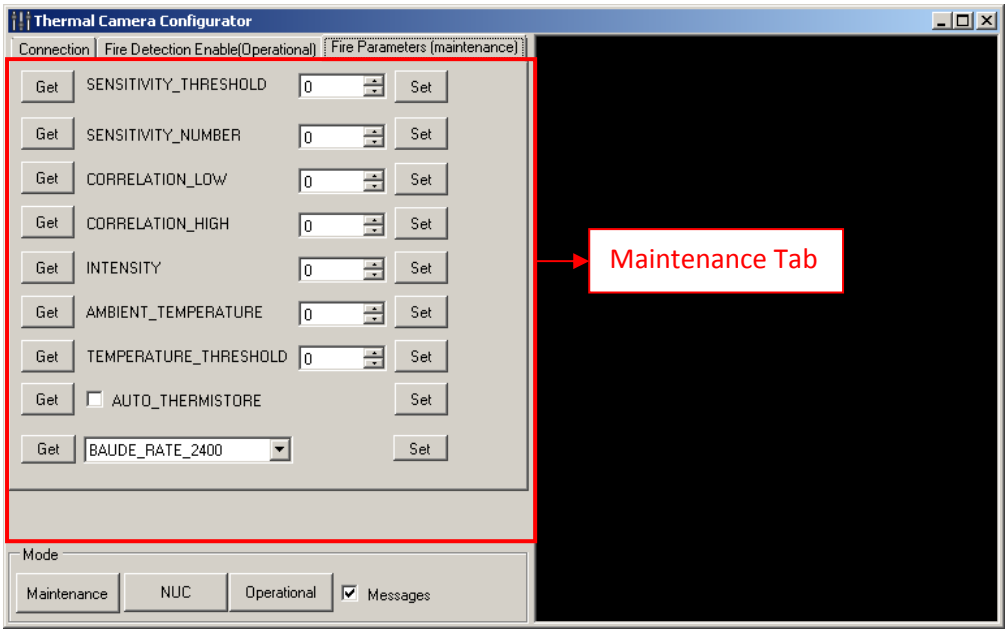
Flip Image

In this section, you can flip the thermal image right/left, up/down.

Polarity

- **Hot White**: When checked, hot bodies in the thermal image appear white, while cold bodies appear black, and vice versa.

5.9.2 Maintenance Tab



Here you can get/set various thermal parameters as shown above.

5.10 *Settings*

5.10.1 Device

General note: *These settings apply to both Thermal & CCD encoder devices.*

- **Authentication: Password:**

The password used to log into to the device may remain blank when the device does not require credentials to retrieve snapshots.

- **Authentication: Username**

The username used to log into to the device may remain blank when the device does not require credentials to retrieve snapshots.

- **Device Channel #**

The Device's Channel Number (0 by default) must remain 0 in most cases.

- **Device Type**

The device is VACAM.

- **HTTP Authentication: Enabled**

Enable/Disable HTTP authentication (by “Authentication: Username” and “Authentication: Password”).

- **HTTP Port**

The HTTP port is used for communicating with the device and for displaying the web view (80 by default).

- **TCP Events Port**

The TCP Events port is used by the device for notifying events (2555 by default).

5.10.2 Oz Lehava

- **Audio Alarm File Name (wav)**

  Sets the fire detection alarm sound.

- **Auto-Hide Fire Alerts**

  When set to True, the Fire Alerts display is hidden automatically.

  Note: **Auto-Hide Fire Alerts** are relevant only when **'Use Audio Alert'**=True.

- **Enable Text on Video**

  Enables burnt text on the encoder.

- **EyeSec Baud Rate**

  The thermal camera baud rate for serial communication.

- **EyeSec Camera IP**

  Thermal camera's IP.

- **EyeSec Communication port**

  The thermal camera's RS232 communication port.

- **EyeSec Response Timeout (mSec)**

  The maximum time (in milliseconds) it takes the thermal camera or a motorized PTZ to respond.

- **Fire Status Interval (mSec)**

  The time spent by the camera between two fire detection requests (in milliseconds).

- **Ignore 0,0 coordinate**

  Ignore the 0,0 coordinate on fire detection.

- **I'm OK Interval (ms)**

  The time interval needed by the system to report failure.

- **Minimum Fire Detections for Fire Alert**

  The minimum number of fire detections to occur on a single preset before raising a fire alert.

- **Repeated Verification Counter**

  The number of times needed to verify the camera's position before sending an error.

- **Stabilization interval (mSec)**

  The camera's stabilizing time before fire detection.

  Note: Unstabilized camera may cause unexpected results, such as false alarms.

- **Stop Verification Time Interval (mSec)**

The time needed to verify the camera's position.

- **Time to Detect (mSec)**

  The time spent by the camera on 'fire detection' for each preset.

- **Use Audio Alert**

  Enable/Disable the Audio fire alert.

5.10.3 Oz -Lehava Learning Mode

- **Learning Mode Enabled**

  When set to 'True', this functionality enables automatic generation of ignored regions for presets. For example, when Learning Mode is enabled, every fire detection coordinate is added as an ignored region for the preset in which it is detected. Thus next time fire is detected on identical coordinates, it will be ignored, and no fire alert will be raised.

- **Region Size**

  The default size of the ignored region generated for each fire detection.

- **Time Zone**

  The Learning Mode time-zone

  Note: If left blank the first time-zone item of the time-zones list will be used.

5.10.4 PTZ Control

- **Baud Rate**

  The serial communication baud rate

  Note: Baud rate is relevant only when **'PTZ Connection Type'** is DirectCOM (not in use in most cases).

- **Device Address**

  Pelco ID number (1 by default).

- **IP Address of the PTZ Device (if any)**

  In case of Serial Over IP communication (most cased), this field contains the IP address of the CCD (day) encoder. During direct serial communication, this field is ignored.

- **Port number of the PTZ Device (if any)**

  The Port Number used for Serial Over IP communication.

- **PTZ Com Port**

  In case of direct serial communication (rarely used), this field contains the port name. During serial over IP communication, this field is ignored.

- **PTZ Connection Type**

  Serial over IP (most cases) or direct serial (DirectCOM).

- **PTZ Protocol**

  PTZ Protocol used (Pelco D in most cases).

5.10.5 Security

- **Login: Password**

The login password for the configurations section

- **Login: Username**

The login username for the configurations section.

Note: The default username & password are “root: pass”.

5.10.6 Video Sources

**For both Video 1(Thermal) & Video 2(CCD)*

- **Aspect Ratio: Height**

The Height element in the Aspect Ratio (relevant only when **'Aspect Ratio: Stretch to Fit'**=’False’).

Enter 0 to use the default Aspect Ratio of the video.

- **Aspect Ratio: Width**

The Width element in the Aspect Ratio (relevant only when **'Aspect Ratio: Stretch to Fit'**=’False’).

Enter 0 to use the default Aspect Ratio of the video.

- **Aspect Ratio:Stretch to Fit** – True -> Aspect Ratio of the video will be calculated to fit the window size.
- **Auto Start**

Automatically start playing the video when the program starts.

- **Caching Value (ms)**

This value indicates the time period (in milliseconds) between grabbing a video image from the video stream and displaying it on the screen.

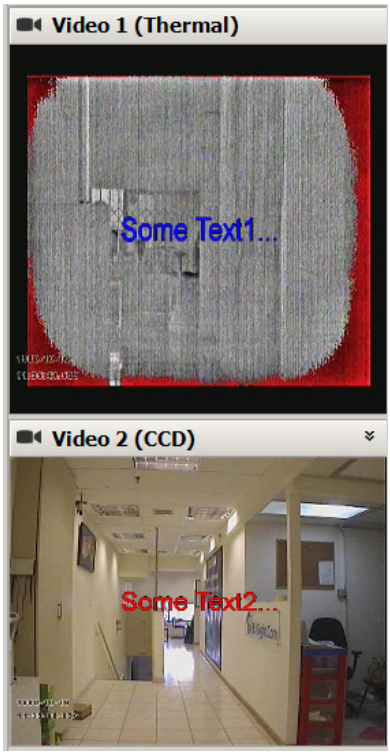
Note: Small values will make the video arrive faster (shorter delay) but might cause the video to be unsmooth or even cause the video to stop (!).

- **Device Channel #**

The Device's Channel Number (0 by default) must stay 0 in most cases.

- **IP Address(Readonly)** – shows the IP address of the video device.
- **Media URL** - The camera’s video address.

Note: Media URL can be either automatically set (*auto*), or user-set (*custom*). To edit the address, set **'Media URL Generation'** to custom.



- **Media URL Generation**
  - Auto - Media URL is generated automatically based on VACAM cameras default stream names.
  - Custom - User specifies the media URL.
- **OSD**

  Video OSD (On Screen Display) can be added to each one of the video sources. The OSD appears only on the video panels, as shown on the right. In order to see the changes, you may need to play the video again after you apply the changes (see section 5.2 'Live Video' for more).

  - **Apply Delay (ms)**

    The Video OSD Apply Delay (in milliseconds). If the OSD is not shown try to increase this value.

    In certain cases, decreasing this value will cause the video to appear faster.
  - **Apply Delay(ms) – On App. Load**

    The Video OSD Apply Delay (in milliseconds) to be used when the application is loading. If the OSD is not shown, try to increase this value.

    In certain cases, decreasing this value will cause the video to appear faster.
  - **Color**

    The Video OSD Color
  - **Enable**

    Enable/Disable the Video OSD text
  - **Font Size**

    The Video OSD text Font Size
  - **Opacity**

    The Video OSD text Opacity ranging from0 (completely transparent) to 255 (completely opaque)

- **Position**

  The Position of the Video OSD text

- **Text**

  The Video OSD text

- **RTSP Authentication: Enabled**

  Enable/Disable RTSP Authentication by **'Device->Authentication: Username'** and **'Device->Authentication: Password'.**

- **RTSP Port**

  The RTSP port used for streaming the device video (554 by default)

- **Session Name**

  Allowed characters: Numbers, Digits and '_'

  Maximum name length: 64 characters. Usually, there is no need to change the default value.

  Note: Any change to this property must correspond to the encoder's values. Otherwise, it is impossible to view the video on the device.

- **Video Stream Type**

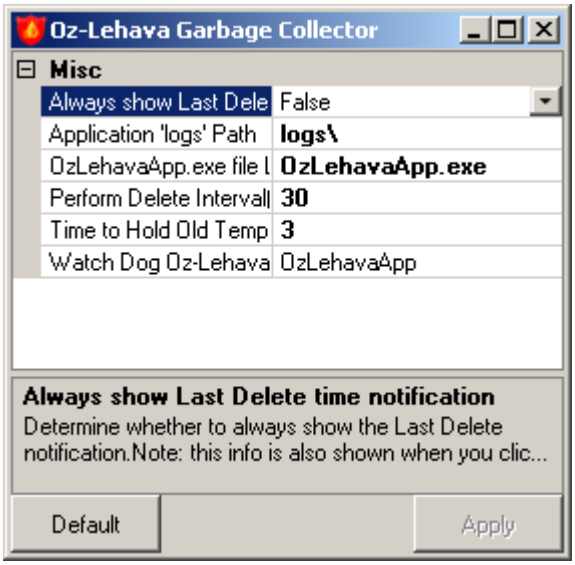
  The video transmission method

  - Unicast->every viewer gets the video directly from the device. In this case, more CPU power needed from the device.
  - Multicast->The video is transmitted from the device only to the router, which multicasts the video to the viewers. In this case, less CPU power is needed from the device.

  Note: Any change to this property must correspond to the encoder's values. Otherwise, it is impossible to view the video on the device.

5.11 *Oz-Lehava Garbage Collector*

This application keeps **OZ LEHAVA** working non-stop and removes old data files. The "Oz-Lehava Garbage Collector" must run at all times. The application can be found on the taskbar/notification area. Right click on the icon ( ) and then click on 'Settings'.



Properties:

- **Always show Last Delete time notification**
  Determines whether to always show the 'Last Delete notification'
  Note: this info is also shown when you click on the 'OZ-LEHAVA Garbage Collector icon'.
- **Application 'logs' Path**

  The path in which the "Logs" directory is located

- **OzLehavaApp.exe file Location**

  The 'OzLehavaApp.exe' file path. This functionality is necessary for the **Oz Lehava** Garbage Collector to work as a watchdog.

- **Perform Delete Interval (Minutes)**

  The time interval between two "excess data files checks".

- **Time to Hold Old Temporary Data (Days)**

  Indicates how many days the "data files" must be kept in hard drive from the moment they are created to the moment they are deleted.

- **Watch Dog Oz-Lehava Process name**

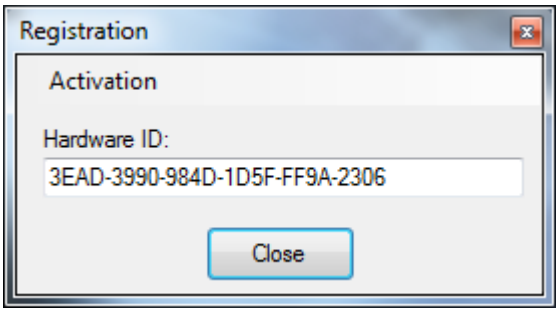
  The process name to be inserted in order for the process to be viewed

After settings new values in **Oz Lehava Garbage Collector**, save the parameters by clicking on the Apply button.

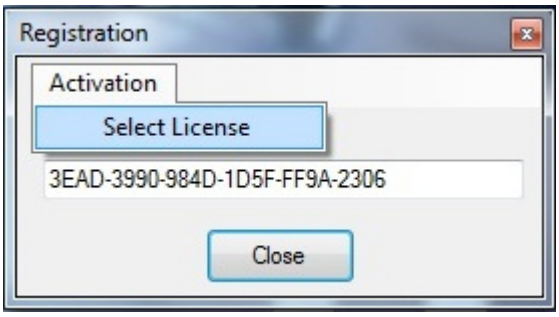
6 OZ-LEHAVA Registration/Activation

To register/activate your product, press the ”OZ-LEHAVA Activation” icon located on your desktop ( ).

The following window will appear:



To receive the license, copy the hardware ID and send it to Ex-Sight.
After you receive the license file, copy it to the installation folder.



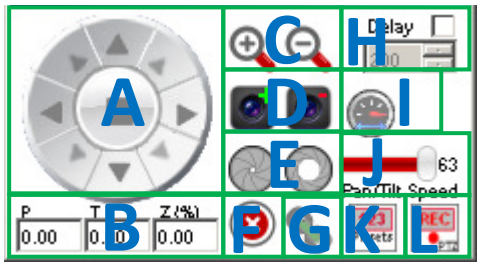
You can do this by clicking on Activation and then selecting the received license, or simply by copying the received license to the application folder (“C:\Program Files\Ex-Sight.Com\OZ-LEHAVA” by default).

7 Trouble Shooting

Issue	Cause	How to fix
"Error: PTZ Request Timeout"	can't get motorized PTZ response	1. Set higher value for 'Eysec Response Timeout'. 2. Check IP number in 'IP Address in the PTZ Device' 3. Check port number in ''PTZ Com Port'. 4. Check physical motorized PTZ network connections.
"Error: Thermal Request Timeout"	can't get thermal camera response	1. Set higher value for 'Eysec Response Timeout'. 2. Check IP number in 'IP Address in the PTZ Device' 3. Check port number in ''EyeSec Communication Port'. 4. Check physical thermal camera network connections.
"Error:Timer too fast"	'Stop Verification time interval' value is too low	1. Set higher value for 'Stop Verification time interval'.
False alarms	The camera isn't steady	1. Set higher value for 'Stabilization interval'. 2. Stabilize the camera physically.
PTZ new locations aren't showmen on PTZ Control Panel	VideoTech switches are configured as 'One way' mode	1. Switches 9 and 10 in VideoTech should be 'On' (up) for 'Two ways' mode
Camera's manual PTZ control doesn't work	Camera network connection issue or 'OZ-LEHAVA' is enabled	1. Insure 'OZ-LEHAVA' is disabled. 2. Check camera network connection.

8 Appendix A: PTZ Control

8.1 *Main PTZ Panel*



(A) P/T Wheel
Allows the user to Pan/Tilt in all directions (the central button stops the camera).

(B) PTZ Current position
Shows the current Pan/Tilt/Zoom position
Note: You can insert values inside the P/T/Z boxes to tell the camera to go to a specific P/T/Z position.

(C) Zoom In/Out

(D) Focus Near/Far

(E) Iris Close/Open

(F) Stop the current action.

(G) Reconnect to the PTZ server.

(H) By filling this checkbox, you can direct the camera to perform a certain action for a given amount of time (for example, pan right for 500 ms).

(I) Pan Turbo On/Off (Pan Turbo is the maximum available pan speed of the camera).

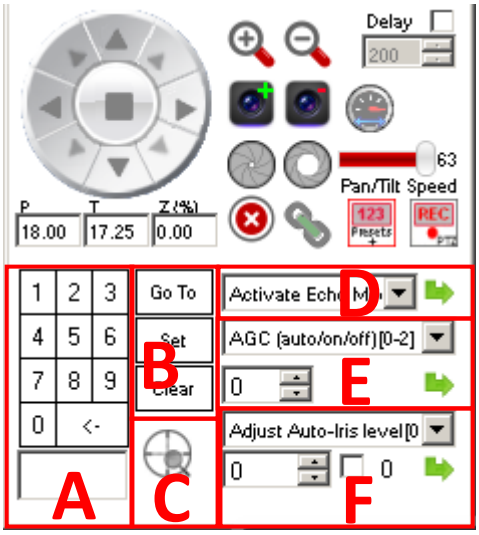
(J) Change the current Pan/Tilt speed.

(K) Open the Presets+ Panel.

(L) Open the Record/Play PTZ Scripts Panel.

8.2 *Presets+ Panel*

A click on the Presets+ button ( ) will open the panel shown on the right:



(A) **Preset Numpad** : Here you can input preset numbers.

(B) **Preset Actions :**

- **Go To Preset**

Goes to a preset position/performs a preset action provided by the camera. (For example, preset 95 in most Pelco D cameras initiates the camera menu).
Usage: input the preset number and then press **'Go To'**.

- **Set Preset**

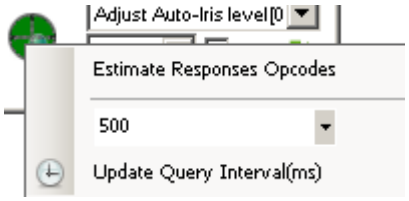
Saves the current position as a preset of the camera
Usage: input the preset number and then press **'Set'**.

- **Clear Preset**

Clears the selected preset number from the camera's presets
Usage: input the preset number and then press **'Clear'**.

(C) **Continuously Query Position**

When checked ( ), the program continuously asks the camera for its current position, and records it in the **PTZ Current Position** boxes (**B** on the Main PTZ Panel).
Right-click it to see the menu on the right ->

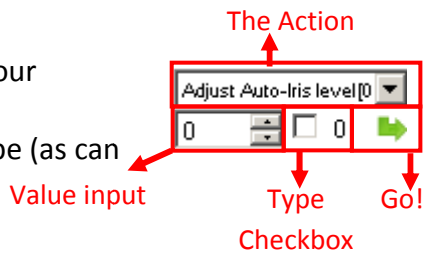


- Check the 'Estimate Responses Opcodes' in case the PTZ positions are not updated upon change of position. (Some cameras do not fully follow the Pelco D protocol, and with this property we attempt to fix it)
- The query interval can be changed by selecting a value from the drop-down list and hitting 'Update Query Interval (ms)'
  Note: PTZ devices cannot handle too many commands/queries in a short period of time. (In this case, the interval must be increased). Vice versa, if positions are refreshed too slowly, the interval may be decreased.

(D) **Fixed Commands** : Select one command from the list (for example, 'Flip 180 degrees') and hit Go( )
Note: An action will be done only if it is supported by your camera.

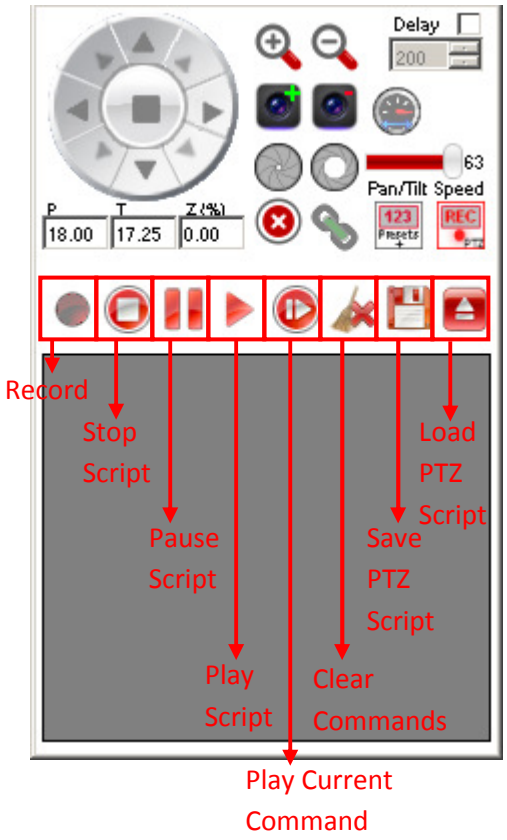
(E) **Extended Commands 1 :** Select one command from the list (for example, 'Set Zoom Speed[0-3]') , enter a value below and hit Go( )
Note: An action will be done only if it is supported by your camera.

(F) **Extended Commands 2:** Select one command from the list (for example, 'Set Pan Position'), enter a value below and hit Go ( )
Note (1): An action will be done only if it is supported by your camera.
Note (2): Some actions require to also set the checkbox type (as can be seen on the right).

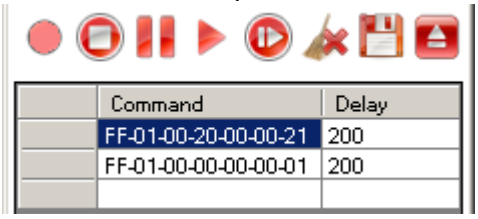


8.3 *Record/Play PTZ Scripts Panel*

In some cases you may wish to use PTZ scripts in order to perform daily tasks on your camera. For example, you might want to change the position of the camera at specific times of the day, or change the day/night camera mode at specific times (in case your camera does not have this option built-in).
In this software you have support of PTZ scripting that enables you to record and play a script.
The following actions are available:

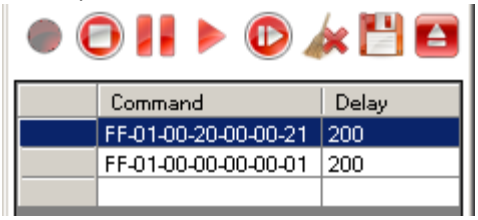


- **Record:** When you hit the Record button, it will light up ( ) to signify a PTZ recording session. In this session, until you will press the Record button again, you can command the camera to perform actions while using the **Main PTZ Panel** or the **Presets+** Panel. Every command will be added as a line in the PTZ script, as shown below:

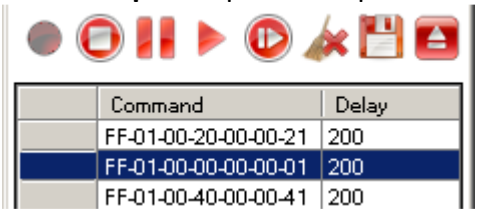


Note: Every line consists of a command and a delay, which is the time (in milliseconds) to pass until executing the next command.

- **Stop Script :** Stops the script and moves the player cursor to the first line (as shown below):



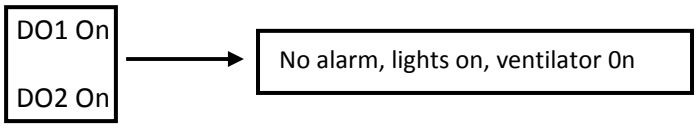
- **Pause Script :** Stops the script at the current cursor position (as shown below):



- **Play Script :**Plays the currently loaded script from the current cursor position (or from the beginning if the cursor is not set)
- **Play Current Command** : Plays only the command that is under the player cursor
- **Clear Commands** : Clears all the script commands
- **Save PTZ Script :** Saves the current script to a file
- **Load PTZ Script** : Load a PTZ script from file

8.4 *Annex Encoder Event Profile Settings (BAZAN, Haifa Oil Refineries)*

Decoder



Profile Name
DO1 Active

- ☑ **DO**
- ☑ **DO1**
- ☑ **Active**

Http:server1
ch0=”on”

Profile Name
DO1 Inactive

- ☑ **DO**
- ☑ **DO1**
- ☑ **Inactive**

Http:server2
Ch0=”on”

Profile Name
DO2 Active

- ☑ **DO**
- ☑ **DO2**
- ☑ **Inactive**

Http:server3
Ch1=”on” (NVD DO2 “on”)

Profile Name
DO2 Inactive

- ☑ **DO**
- ☑ **DO2**
- ☑ **Active**

Http:server4
Ch1=”off” (NVD DO2 “off”)